

SPECIAL ANNIVERSARY ISSUE

SPRING/SUMMER 2021



A proud past
A promising future

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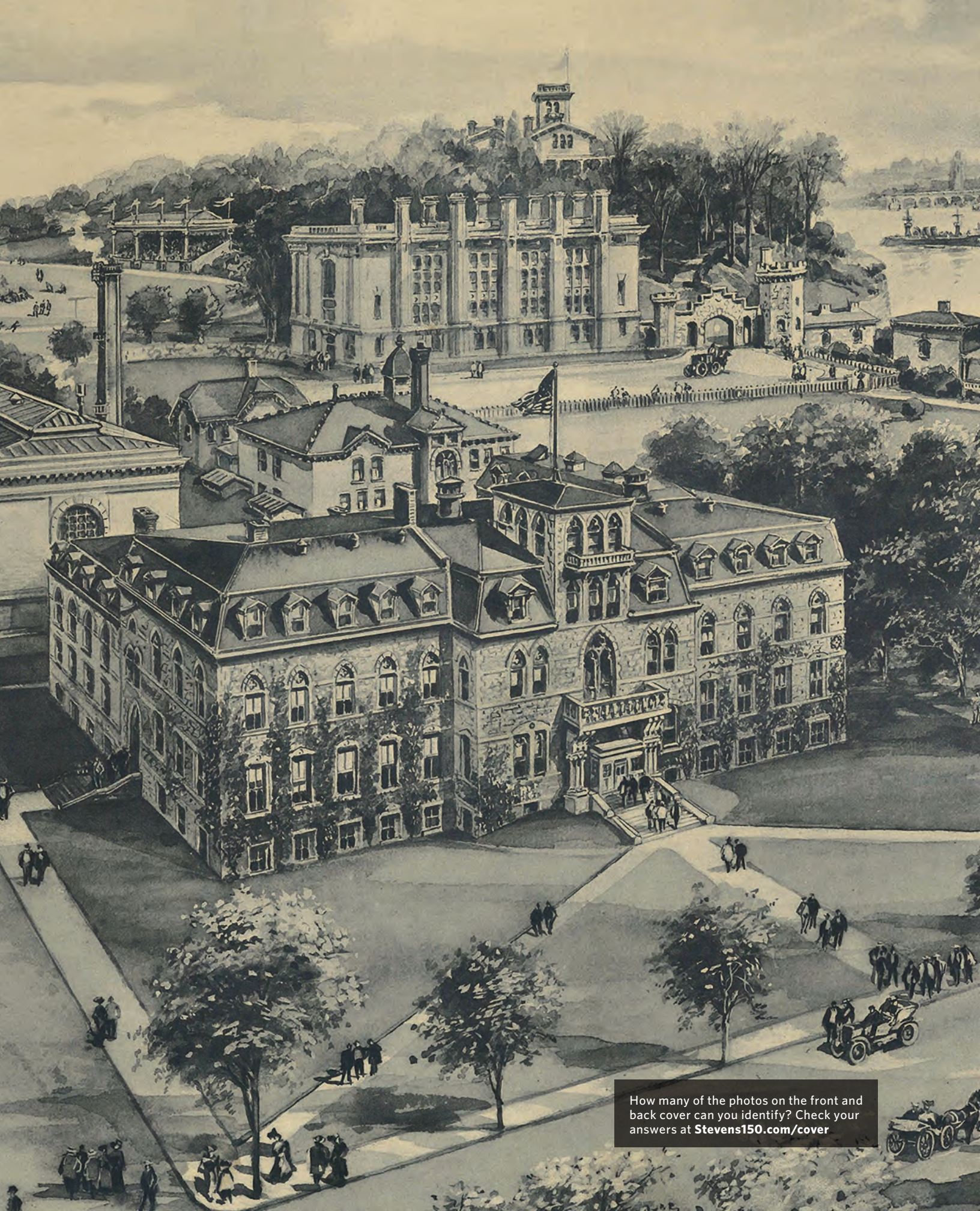
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ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY





How many of the photos on the front and back cover can you identify? Check your answers at Stevens150.com/cover

PRESIDENT'S CORNER

150 YEARS OF MEETING CHALLENGES, FINDING SOLUTIONS — AND EMBRACING THE FUTURE

At this extraordinary time in our university's 150-year history and as our country emerges from the global coronavirus pandemic, I am both grateful for the community that is Stevens and optimistic about our future.

We will never forget the serious challenges of the recent past that have directly affected so many among us. We have met these challenges with the signature qualities of Stevens: resiliency, ingenuity, and a persistent drive to solve problems. Like our extraordinary alumni, many of whom have been on the front lines of the COVID-19 battle, our community has truly exemplified our university's motto, *Per aspera ad astra*. We have worked to find solutions to novel problems while maintaining our focus on providing a stellar technological education for our students and conducting pioneering research, both in our laboratories and remotely.

This moment will also be remembered as a part of our university's history — you will see it documented on the timeline that accompanies this special, expanded sesquicentennial issue of *The Indicator*. This issue both honors the past and looks forward to the future. Founded in 1870 as the first college of mechanical engineering in the U.S., Stevens continues to celebrate this significant milestone through the 2020-21 academic year. Although we kicked off our celebration in February 2020 with Founder's Day events, our planned activities were scaled back significantly due to COVID-19 restrictions. I am hopeful that the continued vaccine availability across the country and the world will enable us to plan a joyous, in-person celebration soon.

Despite a year of pandemic-related challenges, there is much good news to share from Castle Point. First and foremost, the measures we have taken to promote a safe and healthy campus have been working, with campus positivity rates relatively low to date. And, in spite of a global pandemic, enrollment is higher than at any point in university history. Sponsored research awards are also at an all-time high, and our faculty are tackling important problems of global significance. Construction of the University Center Complex, the largest construction project in Stevens' history, is progressing apace, and this magnificent new campus hub is set to open in spring 2022. And, thanks to the pride, participation, and generosity of so many alumni and friends, we have made incredible progress in our \$200 million comprehensive campaign, *The Power of Stevens*. Across nearly all areas of the university, Stevens has made substantial progress on our 10-year strategic plan (now in Year 9, see stevens.edu/strategy), and we are preparing for our next plan, which will span 2022-2032. Indeed, Stevens is prepared to continue its steep upward trajectory post-pandemic.

In the context of this unprecedented year and in honor of our sesquicentennial anniversary, the theme of this special issue of *The*



PHOTO: JOHN O'BOYLE

Indicator is certainly fitting and inspiring. This issue explores various "frontiers" — inflection points where we have stood at the precipice of uncharted territory and chosen to persevere. It looks at Stevens' history and our current momentum — from research, innovation, and infrastructure to the very personal challenges confronted by some of our alumni. The Stevens story is best told through its people — our alumni who have made their mark in a wide variety of industries; our faculty who have inspired generations of students and developed innovations that have advanced the frontiers of knowledge; our administration and staff, who dedicate themselves to strengthening Stevens

for our students; and importantly, our students, who are the hope and the promise of the future.

You will meet extraordinary people in this issue, like the late James Braxton '37 Hon. D. Eng. '87, the second Black student to graduate from Stevens and an innovator in affordable and equitable housing in Chicago who marched with the Rev. Dr. Martin Luther King, Jr.; some inspiring members of the first class of women, who are marking the 50th anniversary of the admission of undergraduate women to Stevens; faculty from across the university who are tackling some of the world's greatest challenges; outstanding students who are fulfilling their promise at Stevens; and young alumni who are already making a positive impact on the world.

In these pages, you will also witness the amazing physical transformation of the Stevens campus over the decades, as well as changes in our university's hometown of Hoboken. We salute our benefactors whose generosity helps to ensure a stellar technological education for generations of students. And we consider the future of Stevens, and of higher education itself. (For additional stories that celebrate our university's past, present, and bright future, please visit Stevens150.com.)

I want to personally thank each member of our remarkable Stevens community and extend my profound appreciation for your support and for your response to an unparalleled set of challenges. I wish each of you good health and good fortune, and I look forward to seeing you on campus in the near future.

Per aspera ad astra,

A handwritten signature in dark ink, reading "N. Farvardin".

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STEVENS
ALUMNI ASSOCIATION
PER ASPERA AD ASTRA

LETTER FROM THE EDITORS

As we work to put the finishing touches on this issue, it is early April 2021. It has now been more than 365 days since the COVID-19 pandemic first turned our world upside down. Though this last year has been challenging, it has also reminded us of how much we have to be thankful for. A quick read through this issue's alumni logs reveals the bravery and resilience of Stevens graduates. Some have pivoted to new opportunities, built virtual connections and taken up unexpected hobbies during quarantine. Others have worked and volunteered on the front lines, serving their communities in healthcare professions or as essential service personnel. However you have been weathering the storm, it is our sincere hope that you and your loved ones continue to be safe and healthy.

We are also thankful to have a cause for celebration — Stevens' sesquicentennial. While many of our anniversary events became virtual or have been postponed, we always envisioned this special 150th anniversary issue of *The Indicator* as a celebration that you can hold in your hands, no matter where you are. We hope that this supersized issue jam-packed with Stevens history, alumni stories and future-focused research, transports you back to Castle Point and fills you with pride.

This issue has truly been a group effort, bringing together staff members from across the university to paint a rich, comprehensive portrait of Stevens' past 150 years and its vision for the future. We would like to extend a special thank you to our colleagues in the Samuel C. Williams Library and Archives & Special Collections whose expert knowledge of university history has been invaluable to this project.

Governmental Recognition on Stevens' 150th Anniversary

In celebration of the university's sesquicentennial, Stevens has received numerous proclamations, letters and other honors from government officials at the federal, state and local levels. Here, we share a selection of quotes from these documents.

"It is no exaggeration to say that Stevens has changed and improved the way we live, work, and communicate, greatly benefitting society." — *U.S. Senator Robert Menendez (D-NJ)*

"Your steadfast commitment to education will help strengthen New Jersey's academic community for generations to come ... thank you for your commitment to our students and our state." — *U.S. Senator Cory Booker (D-NJ)*

"... Stevens Institute of Technology contributes greatly to the local, state and national economy and community through the Institute's development of human capital, technology innovation and commercialization efforts, capital projects, research and in-kind service and volunteer activities, to name a fraction of the university's monumental contributions." — *New Jersey Gov. Phil Murphy*



President Farvardin accepted a proclamation from the N.J. State Legislature from Assemblywoman Annette Chaparro at the Founder's Day Soiree, Feb. 21, 2020.

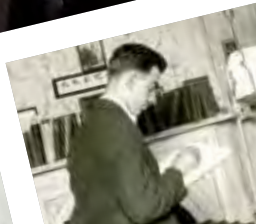
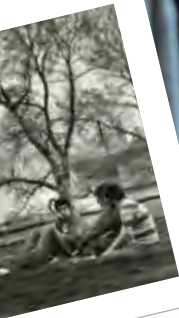
Share Your COVID-19 Experiences

The Archives & Special Collections of the Samuel C. Williams Library is collecting writings, photographs, audio-visual materials and other digital materials to document the experiences of Stevens students, alumni, faculty and staff impacted by the ongoing situation surrounding COVID-19.

We hope this research collection will accurately reflect how our community reacted to and navigated this unprecedented period in history. To participate, please visit library.stevens.edu/shareyourstory

Your Vote Counts!

Don't forget to cast your vote in the Stevens Alumni Association 2021 Board of Directors Election. Please visit connect.stevens.edu/saavote to learn more or to request a paper ballot in the event you do not have the ability to vote online. Voting will close on Saturday, June 5, 2021, at 11:59 p.m. ET.





150 YEARS OF EXPLORING NEW FRONTIERS

STANDING ON THE BLUFF at Castle Point beside the iconic Stevens cannon, one towers over the mighty Hudson River and can oversee the progress of the ever-climbing Manhattan skyline. On a clear day, the limitless horizon seems almost within reach. There is a distinct feeling that with Stevens as a launchpad, one can go anywhere. This has been true for the life of the university.

There is reason to believe that this unique vantage point inspired the Stevens family, who built their home, “Villa on the Hudson” (colloquially known as Castle Stevens), where the Wesley J. Howe Center now stands. It was from Castle Point that “America’s first family of inventors” launched the first commercial steam ferry in the world, demonstrated the first American-built locomotive and established the international sailing competition known today as The America’s Cup. Having significantly advanced the frontier of 19th-century transportation, the Stevens family invested in a new challenge — technical education.

When Edwin A. Stevens died in 1868, he left a generous bequest of land, funds for construction and an endowment, along with instructions to his widow, Martha Bayard Dod Stevens, and trustees to create a new institution of higher learning. Stevens Institute of Technology was founded in 1870 and embarked upon another frontier: becoming the first institution in the U.S. to offer a mechanical engineering degree.

From these boundary-pushing beginnings have come progress and innovation that the founders may never have imagined.

Engineer and civil rights activist James Braxton ’37 Hon. D.Eng. ’87 created more equitable living conditions by developing a patented affordable housing system. Nobel prize-winner Frederick Reines ’39 M.S. ’41 Hon. D.Eng. ’84 helped to prove the Big Bang theory through the discovery of the neutrino. University administrators towed a decommissioned World War II ship to campus to serve as a dormitory when demand for housing surpassed space on land. Women joined the student body in 1971, helping to kick off a new era of diversity and inclusion at Stevens. The Stevens alumni network has extended across the U.S. and around the globe, with many graduates excelling in their fields and becoming industry leaders. Today’s professors are working on leading-edge research in new fields that will revolutionize the way we live and work. Advances in technology have expanded learning opportunities beyond campus classrooms and onto screens around the world — allowing us to move forward even during a global pandemic.

One hundred and fifty years after its founding, much has changed about Stevens — but it’s clear that the innovative and pioneering spirit of its founding family remains.

This special anniversary issue of *The Stevens Indicator* considers some of the many frontiers that have been encountered, explored and conquered by our students, alumni, faculty and staff — and predict what horizons they might be chasing next.

Stevens Through The Years

In 1868 Edwin A. Stevens died, leaving behind funds and a block of land adjoining his estate on Castle Point for the establishment of a university in his family's name. His wife, Martha Bayard Dod Stevens, was instrumental in directing that bequest to found Stevens Institute of Technology. In the 150 years that have followed, the university has grown exponentially. Here are some highlights from throughout Stevens' history so far.

Stevens Institute of Technology is officially established on **February 15, 1870**, through an act of incorporation.



1870

DR. HENRY MORTON is chosen as the first president of Stevens.



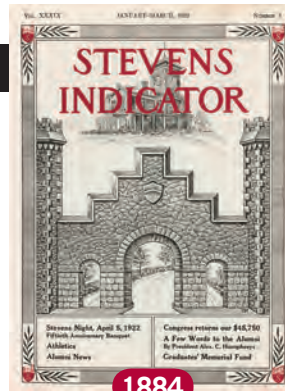
1870

Fraternities are first introduced on campus, including Theta Xi (technically the first fraternity at Stevens), Sigma Theta Pi (discontinued in 1875) and Delta Tau Delta.

1874

The first meeting of **the American Society of Mechanical Engineers** is held on April 7, 1880, in Edwin A. Stevens Hall, formerly known as the Administrative Building. Stevens mechanical engineering professor Robert H. Thurston serves as its first president.

1880



1884

1870

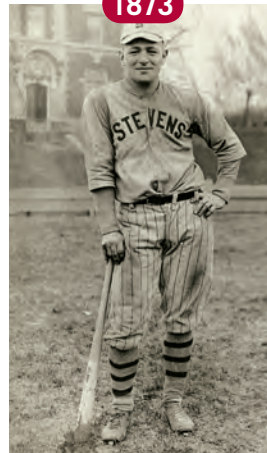
1880

1890



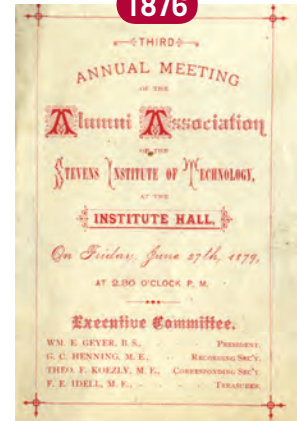
1872

Varsity football team is formed. **Later abolished** in 1925 as a Stevens intercollegiate sport due to student injuries.



1873

Baseball team is organized.



1876

The **Stevens Alumni Association** is organized.



1873

Stevens Glee Club is founded.

1873

Stevens graduates its first class in June 1873; it consists of one student, J. Augustus Henderson. Henderson becomes the first person in the United States to receive the legal degree of mechanical engineer.

The first issue of ***The Stevens Indicator*** is published as a student publication. Later, it is published by the Stevens Alumni Association as Stevens' official alumni magazine.

Stevens Dramatic Society holds its first meeting on December 16, 1910.

The First Student Council is formed. It later becomes the Student Government Association in 1997.

Gear and Triangle Honor Society is formed as a "non-secret honorary society founded on the principle that honor, fellowship, spirit, and active loyalty are essential qualities of the true Stevens man and successful engineer."

The first intercollegiate lacrosse program is started at Stevens. Today, it is the oldest continuously running lacrosse program in the country.



Stevens is placed under control of the War Department during World War I. An Army section of the **Student Army Training Corps**, as well as a Navy unit for the **Steam Engineering School**, are established on campus.



1900

1910

1920

1902



ALEXANDER C. HUMPHREYS becomes the second president of Stevens.

1904



First issue of the student newspaper, ***The Stute***, is published on September 23, 1904.

1908



First Alumni Day is held on June 9, 1908.

1891



Noted businessman and philanthropist **Andrew Carnegie joins the Stevens Board of Trustees**. He served until his death in 1919.

1908

Stevens Honor System is formally adopted.

1915

Lt. Ernest John Munby, Class of 1897, becomes the first Stevens man killed in action during World War I. Munby was an Englishman who volunteered for active service in 1914 and received his commission in the Royal Engineers.

First graduate courses are offered by the college in industrial engineering, electrical engineering, civil engineering, organic chemistry and physical chemistry.

1930



1930

Randolph Montrose Smith becomes the first Black student to graduate from Stevens.



1924

Hoxie House built as a residence for the school's president as a gift of William D. Hoxie, Class of 1889. Hoxie House still serves as the residence of Stevens' presidents.



1929

The Navy College Training Program (V-12 program) begins, to train students to become naval engineering officers for the war effort. Stevens' pre-war curriculum is reinstated in 1944.



1943

1940

1930

1928



DR. HARVEY DAVIS becomes the third president of Stevens.

1932



The John W. Lieb Memorial Collection of Leonardo da Vinci is presented to Stevens by businessman Samuel Insull. The collection comprises a number of rare books, facsimiles and prints on the life of Leonardo da Vinci collected by John W. Lieb Class of 1880 Hon. D.Eng. 1921.

1935



Experimental Towing Tank #1 is completed and housed in the Navy Building as a laboratory and research center for scale-model experiments for marine vessels. Program is later expanded and the facility is renamed the **Davidson Laboratory** in 1959 in honor of its founder, professor Kenneth Davidson.

1931



The tradition of freshmen wearing "dinks" begins in 1931. It was discontinued in 1969.

1938

First female students take graduate courses at Stevens.

The mandatory summer camp for Stevens students after freshman year, officially known as the **Stevens Civil Engineering Camp**, (affectionately known as “Jonhsonburg”), held its **first session in 1930** and continued every summer through 1955.

DR. JESS H. DAVIS becomes the fourth president of Stevens.



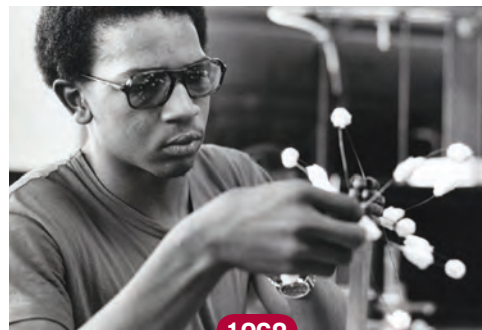
Castle Stevens demolished to make room for new Stevens Center Building (now the Wesley J. Howe Center). *Read more about The Castle on page 104.*

1959

The first campus radio station, **WSRN**, goes on the air on December 7, 1959, at 730 kHz. The station becomes **WCPR** in 1967.



The Stevens Technical Enrichment Program (STEP) is created to “expand access to engineering and science to minorities” and to increase the pool of underrepresented students in these fields. It is one of the first programs of its kind in the country. *Catch a conversation between a STEP alumnus and a current STEP student on page 42.*



1950

1960

1970

1947



Emmi Hauser Fischl, a Holocaust survivor, becomes the first female professor at Stevens. She spends her career in the Department of Physics.

1964



In April 1964, famed sculptor **Anna Hyatt Huntington** presents her **3,400-pound, cast-aluminum sculpture, “The Torch Bearers,”** to Stevens.

1967



S.S. Stevens is converted for use as a “floating dormitory.” The ship, formerly the luxury cruise liner, *Exochorda*, is used as a dormitory for upperclassmen from 1967 to 1975. *Read more about life aboard the S.S. Stevens on page 30.*

1961



The Latin American Association first organizes in 1961. It was recognized by the Student Council as an official student organization in 1962.

TIMELINE



1974

Led by coach Linda Vollkommer-Lynch Hon. M.Eng. '04, **fencing becomes the first women's varsity sport** at Stevens. Linda continues to coach women's fencing today.

CIESE (Center for Innovation in Engineering and Science Education)

is established to leverage and strengthen STEM disciplinary and pedagogical expertise through research on teaching and learning, professional development for educators and curriculum design.

1988

Frederick Reines '39, M.S. '41, Hon. D.Eng. '84 wins the Nobel Prize in Physics for the discovery of the neutrino. *A profile of Reines appears on page 50.*

Nineteen women enroll as the **first female undergraduates** at Stevens, giving life to a new era. *Read accounts from the first female undergraduates on page 44.*



1971

Delta Zeta Chapter of Phi Sigma Sigma sorority is established on February 27, 1982, as the **first sorority on campus**.

1982

DR. HAROLD J. RAVECHÉ

becomes the sixth president of Stevens.



1988



1995

1970

1980

1990

1972



DR. KENNETH ROGERS

becomes the fifth president of Stevens.

1978



Sheila Banks becomes the first Black woman to graduate from Stevens.

1974



Lenore Schupak becomes the **first woman to earn an undergraduate degree** from Stevens on May 24, 1974. She was among the first women admitted in 1971 and completed her studies in just three years.

2008



Stevens is named the 2008 **Eastern College Athletic Conference Jostens Institution of the Year**. **Stevens wins the award a second time in 2013**, selected from more than 300 Division I, II and III programs across the U.S.

2009

Davidson Lab assists with the **emergency landing of US Airways Flight 1549 on the Hudson River — "Miracle on the Hudson"** — on January 15, 2009.

The university launches ***The Power of Stevens***, the **largest fundraising campaign in Stevens' history**. With an initial \$150 million goal achieved in 2018, the campaign was extended and increased its goal to \$200 million.

The Stevens Men's Volleyball Team wins the NCAA Division III Men's Volleyball Tournament in a 3-0 sweep over Springfield College. It's Stevens' first NCAA team national championship in university history.

2015

Virginia Ruesterholz '83, Hon. D.Eng. '08 becomes the first female chair of the Stevens Board of Trustees on May 1, 2013.



2013

SU+RE HOUSE, an energy-efficient, storm-resilient solar home built by a team of Stevens students, wins the international **Solar Decathlon**, sponsored by the U.S. Department of Energy.



2015

President Farvardin selected by **Carnegie Corporation of New York** to receive the Academic Leadership Award.

2017

A. James Clark Scholars Program established at Stevens to provide financial support to exceptional students underrepresented in STEM.

2017

Dr. Jean Zu becomes the first female dean of the Charles V. Schaefer, Jr. School of Engineering & Science.



2017

Hundreds turn out for Stevens' Founder's Day events, on February 21, to **kick off the university's sesquicentennial celebration**.



2020

2000

2010

2020

2011



DR. NARIMAN FARVARDIN takes office on July 1, 2011, as the seventh president of Stevens.

2018



Stevens receives the ACE/Fidelity Investments Award for Institutional Transformation in recognition of its innovative and creative response to higher education challenges and achievement of dramatic change.

2020



Stevens faculty, staff and students pivot to remote learning and operations due to the **coronavirus pandemic** in March. A comprehensive health and safety plan guided a phased return to campus beginning in August.

2016



FOR THE FUTURE

Construction continues on the **University Center Complex**, the largest building project in Stevens' history, which will transform life at Castle Point. The future landmark will open in spring 2022.

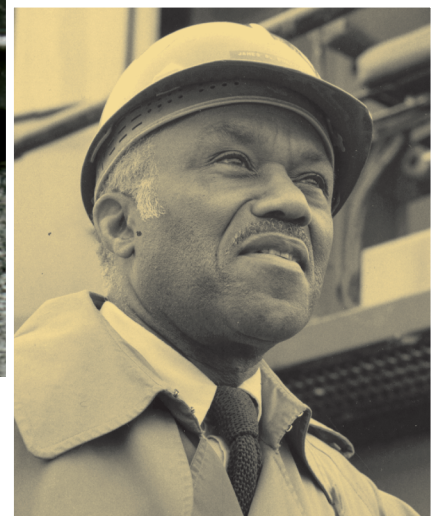
To view a more extensive timeline of Stevens' history over its first 150 years, visit **Stevens150.com**.

PERSONAL FRONTIERS

THOUGH OUR UNIVERSITY was built from bricks and mortar, its heart is human. People come to Stevens for many reasons. Some come to learn, others to educate. Many come to discover. All who leave will have grown because of their time here. Stevens draws curious minds, fearless explorers, rigorous researchers, determined innovators, challengers of the status quo — those who push past boundaries, above expectations and outside of comfort zones. “Personal Frontiers” features a sampling of life stories, achievements and advice from our extraordinary Stevens community.

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Braxton at a Baltimore construction site in 1941.



Dr. James S. Braxton

Building a more equitable world through affordable housing systems

***Editor's Note:** In 2020, Virginia Braxton, the wife of the late James Braxton '37 Hon. D.Eng. '87, generously donated her husband's papers to the Samuel C. Williams Library. Here, Leah Loscutt, head of the library's Archives and Special Collections, traces this alumnus' extraordinary life and legacy through family interviews and this new collection of his letters and photographs.*

When Dr. James "Jim" Sylvester Braxton '37 Hon. D. Eng. '87 was a young man, he wrote out a list defining success. Inspired by the writer Ralph Waldo Emerson, Braxton noted: "to leave the world a bit better." Poring through The James Braxton Papers that were recently donated by his widow, Mrs. Virginia Braxton, reveals Braxton's commitment to that early inspiration and has provided deep insight into the unexplored life and career of this extraordinary Stevens alumnus.

Braxton was the second Black student to graduate from Stevens, after Randolph Montrose Smith Class of 1924. Born in Waukesha, Wisconsin, the son of a minister and a homemaker who moved East, he graduated from Lincoln High School in Jersey City, New Jersey, at the top of his class. He secured a four-year Edgar B. Bacon scholarship before entering

Stevens in the fall of 1933. Braxton was one of the most active members of his class, a member of the engineering honor society Tau Beta Pi, and in 1937 pledged and was admitted to the Jersey City Chapter of the prestigious fraternity Alpha Phi Alpha, the first fraternity chartered for Black men in America. (A chapter was established at Stevens 82 years later, in 2019.)

In *The Link* yearbook biography, Braxton is described as having "an

enviable scholastic record,” appearing consistently on the dean’s list. “We expect big doings from this young engineer, and we are sure Jim won’t disappoint us.” Not only did he not disappoint, he excelled spectacularly.

A thriving career, prominent friendships

After Braxton graduated from Stevens in 1937, America was still greatly affected by the Great Depression and Black Americans had limited job opportunities. Nonetheless, he landed a position with Lockwood-Greene Engineers to help build a power plant at Atlanta University, a historically Black institution that is now known as Clark Atlanta University. Braxton enjoyed an active social life while in Atlanta, which was becoming a mecca for Black scholars and artists. Years later Braxton reminisced about his friendship with the artist Romare Bearden and dinners with the prominent scholar, activist and author W. E. B. Du Bois, who taught at Atlanta University from 1934 to 1944. Lindsey Swindall, a teaching assistant professor at Stevens’ College of Arts and Letters, points to the significance of this period in Du Bois’ long career, “Though the aging Du Bois was approaching his seventh decade, he was still doing groundbreaking historical research that challenged the conventional white supremacist perspective of American history with books like *Black Reconstruction in America*.”

In 1941, Braxton finished his work in Atlanta and moved on to other projects with two significant Black architects: Samuel Plato and Hilyard Robinson. Plato and Robinson were both early trailblazers, and Braxton worked as their chief engineer and engineering consultant, respectively. Plato was the first Black architect to receive federal building contracts, and became best known for his work on federal U.S. post offices nationwide. Robinson is still highly regarded for his housing designs.

Braxton worked with Plato on the homefront during World War II as a skilled engineer, and together they built the Langston Stadium Residence Halls, which were temporary buildings designed to provide housing, recreation, food and

medical facilities for 900 women in the wartime labor force in Washington, D.C.

From Liberia to Harvard to London

Braxton briefly took a position as an instructor at Howard University from 1943 to 1944, but went on a leave of absence in 1944 to help Robinson on a project to commemorate the 100th anniversary of the founding of the Republic of Liberia in Africa. A hitch in the project sent Braxton home earlier than expected and this allowed him to pursue his next goal sooner: completing the city and regional planning master’s program at Harvard University.

Soon after Braxton entered Harvard, he was awarded a Julius Rosenwald fellowship. Civil rights activist Julian Bond referred to the list of Julius Rosenwald fellowship grantees as the “who’s who of Black America in the 1930s and 1940s” and Braxton shared this renowned honor with luminaries Langston Hughes, W. E. B. Du Bois, and Maya Angelou. He then spent the summer of 1946 studying with the Ministry of Town and Country Planning in England, where he saw firsthand the destruction London endured during World War II.

Chicago-bound, and marching with Dr. King

In 1950, Braxton received a letter from city planner Martin Meyerson, chief of planning for the Chicago Housing Authority, requesting that Braxton join his team. Meyerson wrote, “We are still looking for competent, top-level planners and I still can’t think of anyone who would be of greater utility to the housing authority than yourself.” Braxton accepted Meyerson’s offer, and in 1950 he moved to Chicago to



Above: Braxton was the second Black student to graduate from Stevens, earning his engineering degree in 1937. This photo: Braxton, (far right) with friends at a party in Atlanta in 1939.

join the Housing Authority, making the city his home until 2015 when he passed away at the age of 101. In 1965, Braxton was promoted to assistant chief engineer of the metropolitan sanitary district of Chicago. He was the first Black engineer to hold a top position in that district.

Braxton’s career in Chicago helped shape the remainder of his professional and personal goals, which included working on affordable and equitable housing — a central theme throughout his career and a key issue in the civil rights movement. Throughout Braxton’s papers there is documentation of



Braxton, seated at left, was named assistant chief engineer at the Chicago Sanitation District in 1965. He was the first Black engineer to hold a top position in that district.

his meaningful responses to racial inequality, including his personal experiences with discrimination. In 1951, Braxton wrote to the head of an insurance company that had just denied him a basic health policy because of his race. He cogently pointed out, “Health experience and longevity are not racial traits ... but rather are the result of unhealthful living conditions produced by discrimination in housing and lack of economic equality.”

In 1966, Martin Luther King Jr. moved to Chicago to address the poor living conditions of Black populations in American cities. Already active in the civil rights movement, Braxton joined Dr. King’s march on August 5, 1966, protesting housing discrimination in Chicago. During this march, a group of hecklers nearby turned violent, injuring Dr. King by throwing a large stone at his head. When Mrs. Braxton was recently asked how her husband would have responded to the current Black Lives Matter movement, she said, “Like every Black person in America, he knew there is always a potential for violence at the hands

of the police. He would have supported the peaceful protest of the Black Lives Matter movement, as well as efforts to improve Black lives through legislation, court cases and administrative actions.”

Toward the end of his career, Braxton received two great honors from Stevens: an alumni achievement award in 1970 recognizing his work in the government sector, and an honorary doctorate in 1987. In Braxton’s 1987 speech he said, “Last year I obtained a U.S. Patent on a systems approach to housing construction. Although the system will permit construction of any type of building, anywhere, the shortage of affordable housing, and the presence of so many unemployed in the inner city make it an attractive starting place.” This cutting-edge system included pre-manufactured interlocked masonry blocks that implemented the best professional engineering standards. These could be easily assembled by unskilled labor forces, which addressed both the affordable housing shortage and unemployment in inner cities, which were often the biggest barriers to more equitable

living conditions. “The system could also help address the effects of climate change by quickly building homes destroyed in our increasing natural disasters,” says Mrs. Braxton. Challenges in raising funds for research and development prevented universal adoption of The Braxton System, and, as Mrs. Braxton reflects, “Jim was always ahead of his time.”

Fortunately, Braxton’s visionary ideas that affirm his early inspiration of success “to leave the world a bit better” are now preserved in the Stevens archives for future generations to discover and build upon his lifetime of success. ♦ — Leah Loscutt

► The James Braxton Papers are now available to researchers by appointment at the Samuel C. Williams Library. For information, email Leah Loscutt at Leah.Loscutt@stevens.edu

To view a recent webinar on the life of James Braxton that features his wife and others as panelists, visit Stevens.edu/BraxtonRoundtable

SHARING THEIR WORDS OF WISDOM

Stevens professors and staff have often had a profound and lasting influence on their students. Here, we have gathered quotes, moments and insights — some heartwarming, some mysterious — from just some of Stevens' many outstanding and memorable professors and staff members, over the generations.

▶ To share a memorable professor or staff quote or moment, please email editor@alumni.stevens.edu. For stories about some of Stevens' memorable professors, visit Stevens150.com.

“Be profoundly grateful for your blessings. Life goes by quickly and, unfortunately, many times we fail to express our appreciation to family, friends and institutions who have shared and enhanced our journey. In 2021, reach out to them and express your gratitude for their support, wisdom, love and encouragement.”

— RICHARD S. MAGEE '63 M.S. '64 SC.D. '68,
PROFESSOR OF MECHANICAL ENGINEERING

“At STEP, we are 100 percent and more committed to our students' success in and outside of the classroom. Quoting STEP alumnus Earle Derry, ‘If you are willing to work hard, you will give up on you before the program will give up on you.’”

— DEBORAH B. BERKLEY M.S. '84, DEAN,
STUDENT DEVELOPMENT & ENRICHMENT
PROGRAMS, AND LONGTIME DIRECTOR,
STEVENS TECHNICAL ENRICHMENT PROGRAM

“I get some of the brightest, the best and the savviest engineers in the world who, as seniors, have learned lots and lots of science and technology ... [But] we all know that science and technology have little value unless it's applied to the benefit of society.”

— VIKKI HAZELWOOD PH.D. '07,
PROFESSOR AND DIRECTOR, DEPARTMENT
OF BIOMEDICAL ENGINEERING

“There is entirely too much emphasis on differential equations today. We should be studying integral equations because big fish are eating little fish off the coast of Sicily.”

— LUIGI Z. POLLARA M.ENG. '58 HON.
D.ENG. '80, MATHEMATICS AND CHEMISTRY
PROFESSOR AND PROVOST EMERITUS

“It's not so much the winning and the losing, but it's about the experience, the fun and the memories!”

— Linda Vollkommer-Lynch Hon. M.Eng. '04, Head Women's Fencing Coach,
Associate Professor of Physical Education

***“People make the lab.
The lab is just concrete
and water in a tank.”***

— DAN SAVITSKY M.S. '52, PROFESSOR
EMERITUS, OCEAN ENGINEERING, AND
70-YEAR DAVIDSON LABORATORY
RESEARCHER AND FORMER DIRECTOR

*“Dr. Suffel’s life revolved
around three passions: God,
his family and friends, and
his teaching and research
of mathematics. After
experiencing a new ‘insight’
in the mathematical field
of complex variables, he
exclaimed: ‘God was playing
with us when he gave this to
us.’ Commenting on why he
worked so hard: ‘I want to
make sure the people I love
enjoy their lives.’”*

— THE REV. GABRIEL COSTA '70 M.S. '72
PH.D. '84 ON CHARLES SUFFEL HON.
M.ENG. '85, PROFESSOR OF MATHEMATICS
AND DEAN OF GRADUATE STUDIES

***“If I can answer positively to
three questions every day, it
gives me fulfillment: 1. Did I
do as much as I could today?
2. Did I learn something new
today? 3. Did I work as hard
as I could today? And that’s
really the best I can do.”***

— DONALD “DOC” LOMBARDI,
UNIVERSITY TEACHING PROFESSOR,
STEVENS SCHOOL OF BUSINESS

***“I believe behind every
successful person there is
some struggle. Otherwise,
we wouldn’t be so strong.
So many people deal with
this, but nobody likes to say
it. I’m very open-minded — I
don’t mind exposing myself
and my weaknesses.”***

— JEAN ZU, DEAN OF THE CHARLES
V. SCHAEFER, JR. SCHOOL OF
ENGINEERING AND SCIENCE

***“Learning has a beginning,
but it has no end.”***

— MAREHALLI G. PRASAD, PROFESSOR
OF MECHANICAL ENGINEERING

***“To love is to love and to
love, and when you’re done,
love more.”***

— WILLIAM F. ONDRICK HON. M.ENG. '74,
PROFESSOR OF MUSIC AND STEVENS
GLEE CLUB DIRECTOR

***“It’s not enough just to absorb
information, but you have to make a
contribution to knowledge.”***

— James E. McClellan, III Hon. M.Eng. '98, Professor Emeritus and Former Dean,
College of Arts and Letters

***“Amazing things can
happen when students
and teachers continue
mutual association in
an unfinished quest
for knowledge and
understanding, along the
great circle of teaching,
learning and life.”***

— SILVIO LACCETTI HON. M.ENG. '96,
RETIRED PROFESSOR OF HISTORY

***“The physics class that I
conducted on the afternoon
of November 22, 1963, has
lasted with me as particularly
meaningful. When we learned
of President Kennedy’s death, I
chose to continue the class with
a discussion of the significance
of that tragic act. I spoke of
how we all contribute to our
American society and how we
must all take some responsibility
for the events that transpire in
that society. I urged the students
to consider their role as citizens
and the ramifications of their
actions for the events of that
day and going forward.”***

— EDWARD FRIEDMAN HON. M.ENG. '83,
PROFESSOR EMERITUS OF TECHNOLOGY
MANAGEMENT

CLOSE UP WITH AIMI SELA '04

Aimiende Negbenebor Sela '04 has never been one to let circumstance control her. Instead, her perseverance, hunger for knowledge, openness to change and courage to pursue her passions have led her on an incredible journey, from foster child to independent filmmaker.



PHOTO: RICH SOUBLET

Born to Nigerian parents in New York City, Aimiende “Aimi” Negbenebor Sela '04 spent her childhood between two continents. Shortly after her birth, Sela’s parents separated, and her father returned to Nigeria, leaving her mother to raise their two young daughters alone. By the time Sela was two, financial hardships led her mother to make a heart-wrenching decision — she gave up her youngest daughter, sending Sela to live in Nigeria under the legal guardianship of distant relatives.

Sela lived in relative comfort in her foster home. Her foster mother, a half-sister of her father, was the wealthy owner of an estate in Lagos, with plenty of room for Sela and four other foster siblings. While the children didn’t want for material things, affection

was scarce, so when Sela’s father resurfaced when she was 10, she moved in with him. While living with a biological parent was an improvement in some ways, it was a challenge in others. “My foster family was wealthy, but my dad’s family was not,” explains Sela. The wealth disparity became especially clear to her when suddenly, her school fees weren’t being paid on time, and buying a new pencil meant forgoing

lunch. She continued to wear shoes long after she outgrew them, and her school uniform was ripped and patched too many times to count.

The transition has had lasting effects on Sela. “My teenage years began and ended in poverty,” she says. “Who you see yourself as, your self-esteem, those ideas are formed during those preteen, teenage years. For me, they were formed in poverty.” She credits this experience with helping her develop a balanced outlook on life. “I know what it is like to have, and I know what it’s like not to have,” she says. “For instance, I hate waste. I think little things like that are embedded in my personality from living those two opposite lives.”

Coming (back) to America

At 17, Sela reconnected with her biological mother, who invited her to move back to New York. After about a year of living together, the family dynamic became strained. Following repeated threats of being sent back to Nigeria, Sela decided to leave. “I was just tired of not being wanted,” she reflects. “It’s exhausting.” A student at Hunter College at the time, she stayed with friends but was also homeless for a few months until she could secure an apartment through the school. It was around this time that Sela found something that she didn’t expect — a family.

While volunteering with a Harlem community youth organization, Sela met the man she has come to know as her adoptive father, David Silverberg. A Stevens alumnus (Class of ’67) and mechanical engineer, Silverberg took an interest in Sela’s education when she mentioned she was considering a major in computer science at Hunter. “You should look at Stevens!” he gushed. Silverberg guided Sela through the application process, and she was admitted in 1999. Their relationship continued, with

Sela meeting and being embraced by Silverberg’s wife, children and extended family. “He started off as my mentor and then he brought me into his family,” Sela says. While there was no formal adoption process, given that Sela was over 18, she signified her newfound belonging by adding “Sela” to her last name — a Hebrew translation of Silverberg, meaning “boulder.”

Finding her true passion

A co-op student, Sela finished her education at Stevens in five years, earning a B.E. in computer engineering and a B.A. in literature. Following graduation, she worked in computer engineering roles at several high-profile companies, including Ralph Lauren, Accenture and Lehman Brothers before she decided to make a change. “I found my way out of that world because I just didn’t fit in corporate America,” Sela

life story and encouraged her to develop it into a short film. The two worked together to create their first-ever film project, “Asa, a Beautiful Girl,” which won Best Short Film at Reel Sisters of The Diaspora Film Festival in 2013, as well as recognition at several other festivals. Despite the warm reception, Sela is self-critical of the work, as she looks back. “It’s horrible!” she says with a laugh. “It shows all the mistakes a novice would make.” Still, it was this project that prompted her to realize: “This is what I want to do for the rest of my life.”

In the director’s chair

With several subsequent films under her belt, Sela is now a fulltime filmmaker and founder and sole owner of a production company, Sela Films, LLC. Based in Southern California, she is currently working on writing and producing a musical drama called “As the

“We all have the same wants, hurts and desires, but so much divides us and makes us miss out on wonderful experiences with each other ... I believe we all live the same lives, we’re just colored differently.”

explains. “I realized there was this artistic side of me that I really wanted to pursue.”

To make ends meet while she explored a new field, Sela began working in Silverberg’s Bronx, New York, machine shop in exchange for room and board in her new family’s home. When she wasn’t working on developing prototype video cameras and accessories, she was taking acting lessons, booking modeling jobs and auditioning for theatrical roles.

A close friend, who directed her in a few theatrical pieces, was inspired by Sela’s

Cookie Crumbles,” a story about love, loss and unlikely connections. Much of her work centers on bridging gaps across experiences and cultures — themes that have been especially relevant in her own life. “We all have the same wants, hurts and desires, but so much divides us and makes us miss out on wonderful experiences with each other,” says Sela. “I believe we all live the same lives, we’re just colored differently.” ❖ — Erin Lewis

▶ Learn more about what Sela is working on at selafilms.com

12 OUTSTANDING STEVENS ATHLETES

Stevens Athletics has evolved dramatically throughout the university's 150-year history. Once an all-male institution with a limited number of sports programs, the university has grown to offer a total of 25 men's and women's varsity sports, several of which have earned national titles. Here, Stevens honors a selection of 12 outstanding scholar-athletes from throughout university history. Whether on the field, in the classroom or in their communities, these individuals have made an impact, exemplify excellence and are part of our proud legacy. ❖ — Charles O'Brien

Ralph "Swede" Carlson Class of 1921

Stevens Athletic Hall of Fame Class of 1990 (Inaugural Class)

Sports: Football, Basketball, Baseball

CAREER HIGHLIGHTS:

- ▶ Called the "Greatest Athlete in the History of Stevens" by one Hudson County sportswriter
- ▶ Member of two undefeated football teams
- ▶ Played professional basketball with Wilkes-Barre in the Pennsylvania State League
- ▶ Served in the U.S. Navy



- ▶ III national championship match
- ▶ All-time NCAA Division III leader in career shutouts (55)
- ▶ Two-time First Team All-American and two-time First Team Academic All-American
- ▶ Division III Academic All-American of the Year, 2010
- ▶ Received the 2011 NCAA Top VIII Award for success in his sport, classroom, community
- ▶ Program manager, biologics and drug delivery at ClearPoint Neuro, Inc.

Zach Carr '11 M.Eng. '13

Stevens Athletic Hall of Fame Class of 2016

Sport: Soccer

CAREER HIGHLIGHTS:

- ▶ During Carr's four seasons as a goalkeeper, the Ducks went 68-9-12 and won four conference titles
- ▶ Piloted the team to the 2008 Division

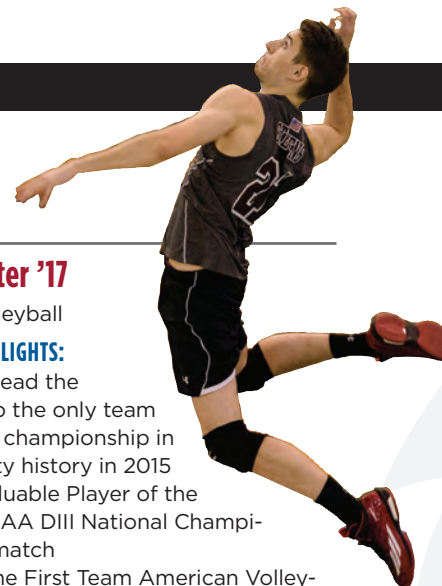


Tim Ferriter '17

Sport: Volleyball

CAREER HIGHLIGHTS:

- ▶ Helped lead the Ducks to the only team national championship in university history in 2015
- ▶ Most Valuable Player of the 2015 NCAA DIII National Championship match
- ▶ Four-time First Team American Volleyball Coaches Association All-American
- ▶ Current program manager with Weiss-Aug surgical products division



ToyKen Yee '85

Stevens Athletic Hall of Fame Class of 1991

Sport: Fencing

CAREER HIGHLIGHTS:

- ▶ Member of the 1982 women's fencing team, — the first women's varsity team to reach their sport's respective NCAA Tournament
- ▶ Finished 14th at the 1982 NCAA Individual Finals; the only student-athlete in program history to reach the NCAAAs
- ▶ Senior adviser, Hudson Financial Group, Inc.



Victor Starzenski Class of 1907

Stevens Athletic Hall of Fame Class of 1991

Sport: Lacrosse

CAREER HIGHLIGHTS:

- ▶ Coached and founded lacrosse programs at Rensselaer Polytechnic Institute, Union College and the University of New Mexico
- ▶ Elected to the Lacrosse Foundation Hall of Fame
- ▶ Memorialized with the Starzenski Award, presented to the men's lacrosse program's most improved sophomore



Gladys Njoku '16

Sport: Track & Field

CAREER HIGHLIGHTS:

- ▶ Won the high jump at the 2015 NCAA Division III Indoor Track & Field Championships
- ▶ Won a second national championship title in 2016
- ▶ Named 2015 Division III Indoor Field Athlete of the Year
- ▶ Production control manager at Allied Beverage Group



Waleed Farid '08

Stevens Athletic Hall of Fame Class of 2013

Sport: Basketball

CAREER HIGHLIGHTS:

- ▶ Led the basketball program to their first:
 - NCAA Tournament appearance (2007)
 - ECAC Championship (2008)
- ▶ Two-time All-Met Basketball Writers selection
- ▶ Played professional basketball in Egypt for one season
- ▶ Current head men's basketball coach at Hartwick College



Laura Barito '11

Stevens Athletic Hall of Fame Class of 2016

Sports: Swimming, Track & Field

CAREER HIGHLIGHTS:

- ▶ National champion in each of her sports: 50-yard freestyle (swimming) and outdoor 400-meter hurdles (track & field)
- ▶ 22-time All-American



- ▶ Two-time Academic All-American
- ▶ Named 2011 NCAA Woman of the Year
- ▶ Nationally ranked weightlifter as well as owner and coach of White Buffalo Training Systems in Louisville, Kentucky

Aracely Cruz '05

Stevens Athletic Hall of Fame Class of 2010

Sports: Basketball, Tennis

CAREER HIGHLIGHTS:

- ▶ Two-time Skyline Conference Player of the Year in basketball
- ▶ Seven all-conference selections
- ▶ Played professional basketball in Puerto Rico
- ▶ Currently an engineer at Kreisler Manufacturing Corporation



Matthew Heinrich '16

Sport: Tennis

CAREER HIGHLIGHTS:

- ▶ Victories at both the NCAA Individual and Doubles Championships
- ▶ Intercollegiate Tennis Association National Rookie of the Year, 2013
- ▶ NCAA Elite 89 Award winner in 2015, for the highest GPA among all players at the tennis national championship



- ▶ Earned a 4.0 during his time at Stevens and graduated (tied) first in his class
- ▶ Ph.D. candidate in mechanical engineering at Princeton University

Valerie Barnhart '06

Stevens Athletic Hall of Fame Class of 2011

Sports: Soccer, Lacrosse, Field Hockey, Equestrian



CAREER HIGHLIGHTS:

- ▶ Guided the women's soccer program to three NCAA Tournament appearances
- ▶ Helped the women's lacrosse program to three conference championships and one trip to the NCAA Tournament
- ▶ Earned three All-America selections
- ▶ Works in AIO IT design and development for AIG and as assistant coach with the Stevens women's soccer program

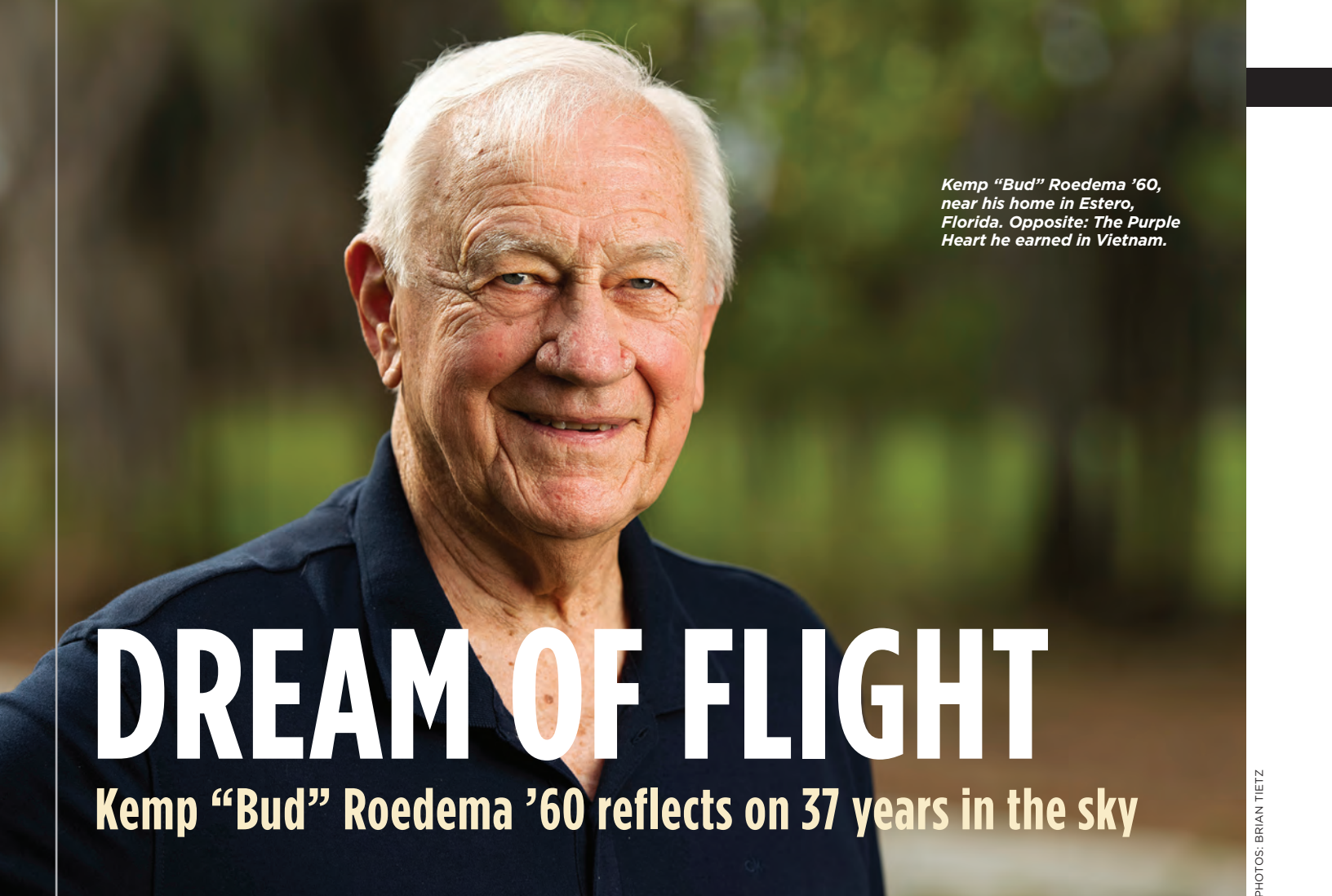
Amy Regan '17

Sports: Cross Country, Track & Field

CAREER HIGHLIGHTS:

- ▶ Most decorated female student-athlete in department history
- ▶ Won six national championships between both sports
- ▶ 14-time All-American
- ▶ Two-time Academic All-American
- ▶ Engineering business development program manager with Garmin International



A close-up portrait of an elderly man with white hair, smiling. He is wearing a dark blue collared shirt. The background is a soft-focus green, suggesting an outdoor setting with trees.

Kemp "Bud" Roedema '60, near his home in Estero, Florida. Opposite: The Purple Heart he earned in Vietnam.

DREAM OF FLIGHT

Kemp "Bud" Roedema '60 reflects on 37 years in the sky

PHOTOS: BRIAN TIETZ

Kemp "Bud" Roedema '60 was 7 years old when World War II ended, when images of P-51 fighters ignited his imagination and the skies above his house in Garfield, New Jersey, seemed full of airplanes bound for faraway places. "Airplanes were always an enticing thing to me," he says. From building model airplanes in the cool of his basement during the long summers to testing a neighbor kid's gas-powered airplane out in the street, he craved the adventure of flight.

His dream of becoming a pilot was later cemented at Stevens when he joined the Air Force ROTC and took his first airplane ride in a C-47 transport plane out of Newark Airport. He would fly for 37 years, 32 years as a commercial pilot with American Airlines and five years with the Air Force, including two tours of Vietnam that would earn him the Purple Heart.

Along his journey, he would experience the great joys of family and a fulfilling career, and the crushing heartbreak of losing loved ones — and almost his own life — in Vietnam.

"I think that Stevens, and the Air Force, helped me face a lot of life's challenges," he says.

Today, Roedema lives in Estero, Florida, where he retired in 1998 from American Airlines. (He retired at the then-mandatory retirement age of 60.)

Speaking by phone, Roedema is soft-spoken, unassuming, touchingly humble.

The youngest of four children (his father was a Dutch immigrant), Roedema chose engineering at Stevens for its promise of a good job and future. But it also satisfied a passion for making things work in the world.

"Even today, I'm not afraid to take something apart and put it back together," he says.

A scholarship student, he joined the Air Force ROTC as a way to fulfill his dream of flying. By the time he was a senior, he and a class of eight or nine Stevens pilots were flying Piper Cubs out of Teterboro Airport.

After a brief stint with the Bendix Corporation, Roedema reported for active duty with the Air Force in April 1961, and attended pilot training in Enid, Oklahoma, with survival and instructor pilot school following.

In November 1963, he got the news by telegram.

"You've been selected as a junior officer to become acquainted with the situation in Southeast Asia," he recalls the notice. "That was the first clue that I was going to Vietnam."

"It came out of the blue."

After training on the C-123 Provider transport aircraft, he headed to Saigon.

For six months, he was co-pilot on the C-123 transport plane, dropping paratroopers and supplies and operating a scheduled airline

service for the South Vietnamese Air Force. He also served as an instructor pilot during much of his five years in the Air Force.

Roedema got to see the world, spending Christmas 1963 in Paris and then traveling on to Greece, Lebanon, Saudi Arabia, Bangladesh, Pakistan, Thailand and the Philippines — all in two months.

A dark day in December

Roedema returned to Vietnam for his second tour in June 1964, charged with training South Vietnamese pilots and providing air support for American special forces camps and close air support for South Vietnamese troops.

On December 1, 1964, Roedema met up with his South Vietnamese student pilot who needed one more flight to complete his training. The two were flying in an A1-E Skyraider at about 200 feet on a simulated skip bombing run over an open meadow, in an area in which the civilian population had been evacuated. They were hit by some type of projectile, and the cockpit quickly filled with smoke and hydraulic fluid.

Roedema calmly recalls the ordeal; it is not one he has shared often. As he tried to climb the aircraft, it was becoming impossible to breathe. He tried to command his student to bail out, but the smoke just became too thick and all communications had been destroyed. He bailed out of the airplane, his parachute got caught in a tree, and he, by some miracle, landed in a sitting position on the ground.

“Everything that happened — someone was looking after me,” Roedema says.

He found a hiding place and soon heard Viet Cong soldiers. At one point, they were within ten feet of him.

Roedema would spend four or five hours on the ground before a rescue helicopter picked him up. His helicopter took some fire during his rescue. He was sore, but basically unhurt.

Two days later, he was flying again. He downplays his quick return and thinks of others who have endured longer tours.

“I really wonder how these guys do four or five tours in Afghanistan and Iraq,” he says.

Roedema later met the father of the student pilot — a dignitary in the South Vietnamese government. His son’s remains were never recovered.

“These are things that happen in war,” Roedema says, quietly.

Roedema left Vietnam in June 1965 for an assignment in Alsace-Lorraine, France, where he met his future wife, Lucia, an Air Force flight nurse.

When he got back to the states in 1966, he “didn’t do a lot, instead concentrating on future endeavors. I had a chance to regain my bearings,” he says.

Roedema would earn the Purple Heart and the Vietnamese Air Gallantry Medal with gold wings for his service.

What stood out to him during his time

internationally. His favorite routes: Brussels, Paris, London, Buenos Aires.

“I always said that it’s great to get paid to do what you love. You’re in a different world when you’re flying.

“You’re looking around, and the rest of the world is below you. It’s not like going to work. I was just enjoying myself. I got to see places I thought I’d never see.”

Through it all, Roedema and his wife raised three sons in Marlboro, New Jersey.

He has experienced much heartache in his family. His oldest son, Kemp, Jr., died of a heart attack at age 48 in 2016.

With life’s challenges, he has found comfort in service to others and his family, which has grown to seven grandchildren and five great-grandchildren.



“I think that Stevens, and the Air Force, helped me face a lot of life’s challenges.”

in Vietnam was the camaraderie with his fellow pilots. “We all lived together ... we were all close-knit. For a year, you’re with the same people.”

Of the eight pilots he went to Vietnam with, six came home, and he and another of the six had been shot down and rescued.

Coming home, and back to the skies

A commercial pilot friend encouraged him in the next chapter of his life, and Roedema joined American Airlines in 1966.

For many years, he flew domestic — New York to San Francisco or Los Angeles were among his favorite routes. For airplanes, he flew everything from the Boeing 727 to the DC10 to his favorite, the Boeing 767. “It was like a big glider, as one can make smooth landings with it.”

For the latter part of his career, he flew

Until COVID-19, he and his wife were long active with Interfaith Charities — an organization of churches that runs food pantries and delivers Meals on Wheels. He worked the pantry and mentored young students; he enjoyed spending time with children whose parents were taking English classes at the charity and striving for a better life, as his own father had.

Roedema tells the story of a visitor who rang his doorbell not long after he had returned from Vietnam. It was a young man he had befriended in Saigon, who had escaped the draft by the South Vietnamese. Roedema had given him his address in the states. The man spent three days with Roedema and his family, left, and they never saw him again.

It was among the wonders of Roedema’s life — of surviving, and of getting to do the work that he loved. ♦ — Beth Kissinger

CAMPUS FRONTIERS

STEVENS and its hometown of Hoboken are constantly evolving. Some alumni fondly remember the smell of coffee emanating from the Maxwell House factory, or braving the “Ho Chi Minh trail” to attend a party aboard the S.S. Stevens. Others recall lattes from boutique coffee shops on Washington Street and doing “The Duck Dance” with Attila. Memories of the Stevens campus experience are as varied and unique as our students and alumni themselves. “Campus Frontiers” pays homage to places and traditions — past and present — that have made a lasting impression.

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7 CASTLE POINT ICONS

From campus landmarks to annual traditions, these seven icons have helped to define the Stevens experience through the years.

Attila

The duck now known as Attila hatched in 1904 as part of a promotional campaign for the first issues of *The Stute*. Originally called “Rodo,” the waterfowl also represented Stevens at early football games. Retired by *The Stute* in 1908, the duck faded from memory until the Student Council sought an official mascot for the university decades later. Attila was formally selected and renamed in 1972. The beloved bird is now a fixture of campus life, regularly appearing at student events and athletic competitions.



important to the student body. Over the decades, they have chronicled some of the most notable events in university and world history — campus military training during two World Wars, President Ronald Reagan and Muhammad Ali’s visits to Stevens, 9/11, COVID-19 — as well as daily life on campus.



The Cannon

The Stevens family unearthed the cannon in 1888 during the construction of Hoboken’s Elysian Park. The mortar was moved to the family’s hilltop estate, where it served as a jungle gym for the Stevens children. More

recently, the cannon — which still sits proudly atop Castle Point — became part of two legendary Stevens pranks. In 1968,

students transported it to the Hoboken train station. The next year, they took

it for a ferry ride into Manhattan itself. In 2015, the cannon was refurbished, and continues to be one of the most popular places on campus for a photo op.



Macy’s Thanksgiving Day Parade

For more than three decades, Stevens has played a vital role in New York City’s iconic Macy’s Thanksgiving Day Parade. More than 100 Stevens volunteers (organized by longtime Stevens women’s fencing coach Linda Vollkommer-Lynch)



gather annually to take on a variety of roles for the parade, from balloon inflation to piloting to vehicle management.

The Stute

Since 1904, student editors, writers and photographers of *The Stute* have been keeping the Stevens community informed of campus news and matters



Innovation Expo

In 2012, Stevens evolved its annual senior design project showcase into an all-encompassing research-focused event — Innovation Expo. Parents, alumni, visitors from industry and students from nearby middle and high schools come to see the breadth of ideas and the wealth of innovation Stevens students pour into their senior design projects. The event concludes with the Ansary Entrepreneurship Competition, a recent tradition and opportunity for select teams to persuade investors to help them turn their projects into businesses.

The Rathskeller

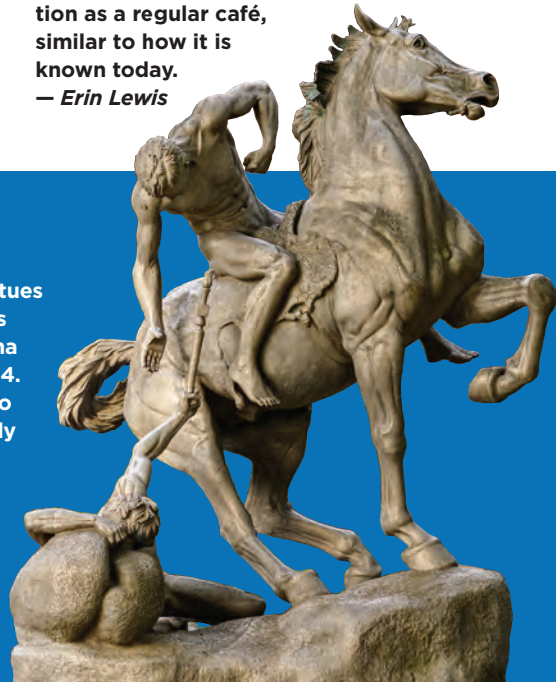
From the 1970s through 1983, when the legal drinking age in New Jersey was 18, Colonel John’s in the Howe Center served as the campus bar. Students affectionately called it “The Rat,” short for Colonel John’s Rathskeller. When the drinking age was raised to 21 in 1983, Colonel John’s ceased serving alcohol, and resumed operation as a regular café, similar to how it is known today.

— Erin Lewis



The Torch Bearers

One of the largest cast-aluminum statues in the world, “The Torch Bearers” was presented to Stevens by sculptor Anna Hyatt Huntington and installed in 1964. Symbolizing the passing of wisdom to youth, the statue has been an instantly recognizable campus landmark ever since — and a favorite for graduation photos and pranksters, too.



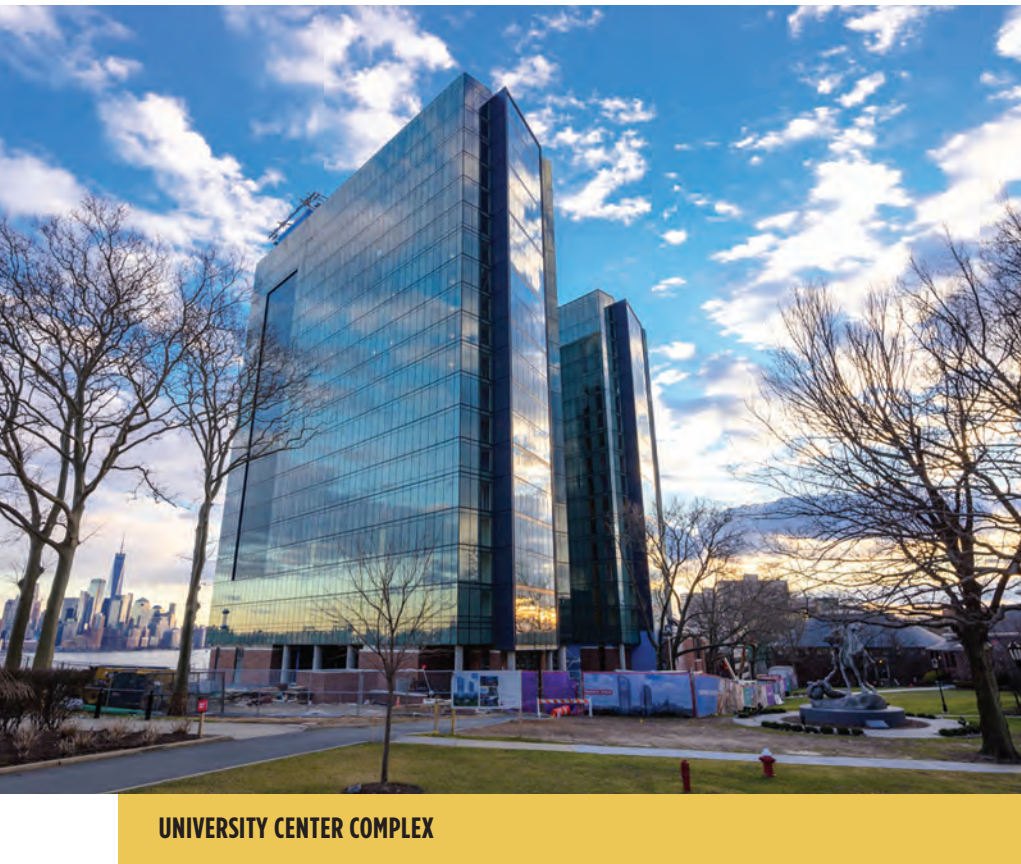
A Walk Through Our Past A Look Toward Our Future

The physical transformation of the Stevens campus has been extraordinary over its history, as the university has always strived to meet the changing needs of its students and society. Dedicated alumni and friends who have chosen to give back have made this transformation possible, providing students and faculty the facilities they need and deserve. As new buildings have arisen, other beloved spaces remain, much improved and ready to serve a future generation. Among them: the iconic Edwin A. Stevens Building and Walker Gymnasium, and the Rueterholz Admissions Center, the lovely old Colonial that is now a vibrant stop for prospective students, thanks to the generosity of Virginia '83 Hon. D.Eng. '08 and Kevin Rueterholz '83.

Here's a walk around the Stevens of yesterday and today. ❖ — *Beth Kissinger*



Rueterholz Admissions Center



UNIVERSITY CENTER COMPLEX

PHOTO: JEFF YOCK

Jacobus and Hayden Halls University Center Complex

Jacobus Hall was among the first dedicated residence halls when it opened in 1937; Hayden Hall rose in 1956. More than six decades later, an extraordinary gift from Carol and Richard Harries '58 transformed this scenic spot — and the campus and skyline — forever. With support from the Harries family and other alumni and friends, the largest construction project in Stevens' history is soaring atop Castle Point. The \$256



million, 392,000-square-foot University Center Complex will house close to 1,000 students in two residential towers, with numerous amenities — from a fitness center to dining options to meeting spaces. This hub of student life will open in spring 2022.

The Navy Building ► Lawrence T. Babbio, Jr. Center



The Navy Building stood strong along River Terrace for decades, as a barracks for Stevens naval officers during both world wars, as well as labs and classrooms. But a transformative gift from former Stevens board chairman Larry Babbio '66 Hon. D.Eng. '01 created the Lawrence T. Babbio, Jr. Center for Business and Technology Management. Home to the School of Business and the School of Systems and Enterprises, with classrooms, labs and faculty offices, it significantly provides space to two financial systems labs funded by Cathy and Sean Hanlon '80. Its lovely atrium and walkway draw many for its stunning views.

The Lieb Building ► Gateway Academic Center

The sturdy brick building at Sixth and Hudson streets served generations, as home to World War I Navy barracks and, later, the Department of Computer Science. In 2019, it was demolished to make way for the Gateway Academic Center — a \$68 million, 89,500-square-foot, teaching and research facility. Computer Science claims more space, while 13 labs — from cybersecurity to 3-D printing — ten smart classrooms, 45 faculty offices, and student study spaces, provide much-needed academic and research space, thanks to all the donors who made this possible.



LAWRENCE T. BABBIO, JR. CENTER

PHOTO: JEFF VOCK



GATEWAY ACADEMIC CENTER





THE LORE-EL CENTER FOR WOMEN'S LEADERSHIP

The Lore-El Center for Women's Leadership

The amazing Lore E. Feiler, a Hudson County entrepreneur, attended Stevens in the 1940s and later made an enduring gift, enabling the opening of a center devoted to supporting women and bearing her name. The Lore-El Center opened in 1998 inside the former Pi Lambda Phi house as an undergraduate women's residence and center for women's programming. In 2017, the program relaunched as the Lore-El Center for Women's Leadership. With interior renovations and a new outdoor venue, with generous support from Lisa Mascolo '82, Lore-El strives to increase awareness of issues facing all genders, empower women and create a supportive, inclusive environment.



WESLEY J. HOWE CENTER

Castle Stevens ► Howe Center

The palatial Castle Stevens was the Stevens family home until 1910, when the family sold it and its land to the university. The Castle served as a dormitory and barracks during two world wars, a dining hall, administrative offices and dazzling ballroom. Falling into disrepair, the Castle came down in 1959, replaced by the Stevens Center in 1962. Rededicated in 1996 as the Wesley J. Howe Center to honor the former board chairman and benefactor, the center houses administrative and student services offices. But Castle Stevens memories burn brightly; see page 104.

PHOTO: KAT KENDON/KENDON PHOTOGRAPHY

DeBAUN AUDITORIUM



DeBaun Auditorium

It was a classroom, a laboratory, a gymnasium, then a theater inside the Edwin A. Stevens Building. Today, it is DeBaun Auditorium — home to the DeBaun Performing Arts Center, where

live theater, music, dance, comedy (by students and professionals) and renowned national speakers thrive. A game-changing gift from the late Grace and Ken DeBaun '49 — and strong support from alumni, staff and friends

PHOTO: JEFF VOCK



PHOTO © KAT KENDON / KENDON PHOTOGRAPHY

ABS ENGINEERING CENTER

— led to a stunning renovation completed in 1998, and a name change. Mostly, it gave the Stevens Dramatic Society, the Stevens Choir, the Stevens Jazz Band and other much-loved student groups the theater they deserve.

Davidson Lab's Rotating Arm Basin ► ABS Engineering Center

In 1942, Professor Kenneth Davidson and his towing tank team built the Rotating Arm Basin for the U.S. Navy in just four months, expanding Stevens' role in serving its country during World War II. The basin would serve Davidson Laboratory's clients for decades. Then, in 2016, a gift from the American Bureau of Shipping transformed it into a stunning space for senior design teams to collaborate, while an



addition added laboratory spaces, faculty offices and workstations where students and faculty continue to address some of the world's greatest challenges.

Stevens Library ► The Samuel C. Williams Library

The Stevens Library has claimed several homes, including the former Lieb Building. In 1969, it settled into a brand-new home — the Samuel C. Williams (Class of 1915) Library, named for the Stevens professor, special collections curator and benefactor. Today, the library is a center for research and study, hosts events and houses archives, special collections and two Calders, including the Stevens Mobile, by Alexander Calder Class of 1919.



PHOTO © KAT KENDON / KENDON PHOTOGRAPHY

THE SAMUEL C. WILLIAMS LIBRARY





LIFE ABOARD THE S.S. STEVENS

Remembering Castle Point's floating dormitory

The October 1967 edition of *The Stevens Alumni Letter* bore an unexpected headline: “Only Budding Engineers and Scientists with Sea Legs Need Apply.” Though it may sound like an advertisement for a new Davidson Lab project, the newsletter heralded the arrival of an unconventional living space for students — the S.S. Stevens.

In the mid-1960s, student enrollment at Stevens was rising, as was the demand for on-campus housing. While a new master construction plan was in the works, it became clear that an interim solution was needed. Around the same time, university administrators learned that the U.S. Maritime Commission planned to sell a 473-foot former passenger-cargo liner out of its “mothball fleet.”

The ship in question had a colorful history. Originally known as the U.S.S. Dauphin, she was built in 1944 as a naval attack transport. Following service in the Pacific Theater during World War II, Dauphin was deactivated in 1946. Two years later, she was re-outfitted as passenger-cargo liner S.S. Exochorda. The ship carried 124 passengers on 42-day round-trip cruises from New York to ports around the Mediterranean until she was deactivated once again in 1959.

Stevens purchased the ship for approximately \$130,000 in 1967. Following renovations at Hoboken's Bethlehem Shipyard, the vessel was moored at the Eighth Street Pier. On November 10, 1967, the vessel was rechristened S.S. Stevens and began housing about 150 students a year from 1968 until its departure in 1975.

Though it was only docked at Stevens for seven years, the ship has solidified itself as a university legend in the hearts and minds of alumni. *The Indicator* caught up with three former residents — John Newton '71, Pat Whelan '72 and Bruce Blondina '73 — to learn what it was really like to live aboard a “floating dormitory.”

The accommodations

Newton was among the first students to live aboard. “In my year, nobody knew if it was a good deal or a bad deal, whether it was going to be unpopular or popular,” he recalls. “I simply arrived and was assigned a room.” Though the staterooms were small (Newton remembers Murphy bed-style bunks that rolled up into the walls to maximize living space), each had a private bath and air conditioning — two luxuries uncommon in dormitories. Playing pool was a popular pastime, though games were often disrupted by changing river tides. “The ball would not go in a perfectly straight line,” remembers Blondina, who lived on the ship for three years. “You had to shim up the pool table to get it level during your game at least once or twice.”

The freedom

One drawback of ship life was the distance of the S.S. Stevens from campus



1



2



3

1 S.S. Stevens moored at Eighth Street Pier, seen from above in the 1970s. 2 Stevens' Dean of Men Richard Eversen, trapped in the ship's brig during a prank pulled by Bruce Blondina '73 and friends. 3 Students celebrating Commencement Weekend on the ship's deck in 1975.

PHOTOS 1 & 3: ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY
PHOTO 2: COURTESY OF BRUCE BLONDINA '73

essentials. Students endured a half-mile trek to class or to the dining hall in all kinds of weather — unless they were brave enough to take the rough-hewn path cut into the cliff face of Castle Point. The shortcut — which came to be known within the Vietnam-era student body as the “Ho Chi Minh Trail” consisted of little more than a pipe and a rope that aided a vertical scramble up dirt and rocks to The Stevens Center (the building now known as the Wesley J. Howe Center).

Though the isolation of the ship was sometimes inconvenient, it was also liberating. Being far away from university administration meant rules could be bent without (much) fear of consequence. A party scene blossomed, and the S.S. Stevens became a popular place for the all-male student body to entertain female guests.

Whelan remembers dazzling his then-fiancée with the ship's incredible

views. “If you think about where the ship was located, you’re across the river from one of the most beautiful cities on the planet,” he says. “It was very romantic in that sense — at the right point in time, and with the right libations!”

The pranks

In addition to parties, pranks were another popular amusement on the S.S. Stevens, often involving a bit of engineering. “A common prank was to get the horn to work, and also to light some smokey materials on fire up in the smokestack to make it look like the motor was running,” remembers Newton. “Occasionally, we’d also throw a fire hose over the stern to make it look like the propeller was turning, and if you could get [all three] to go all at once, it was a big deal.”

One bold prank targeted Stevens’ then-dean of men, Richard Eversen. Knowing that Eversen was knowledgeable about the innerworkings of the ship, Blondina recalls asking the dean to give a tour of the vessel’s lower level — an area typically off-limits to students. “What he didn’t know,” explains Blondina, was that “many of the ‘tourists’ who were joining him had already been down below — and they knew there was a brig.” The students prepared a lock ahead of time and tricked

the dean into going inside one of the cells. “Once he stepped in — clink!” the door was closed and locked behind him. Eversen received bread and water from his captors while a call was placed to his boss to try and secure bail (the request was denied). Though his incarceration only lasted about 30 minutes, it is said the dean later kept a framed photo from the ordeal on his desk.

The connections

The ship’s unique atmosphere created a shared experience and camaraderie among its residents. “The boat, because it was a ways from campus, created a bit of a separate world ... I always viewed it as the eleventh fraternity,” explains Blondina. But it wasn’t just the residents who felt the pull of the ship — their visitors did, too.

Whelan remembers a visit from his father, a World War II veteran who never spoke about his service until he came aboard the S.S. Stevens. “He had gone to Europe on exactly this type of ship,” Whelan says. “We walked up on deck and we started talking; I heard the history of his time in Europe. It was the closest that he and I had been at that point in time ... we talked for hours, and part of it was being on that ship. It brought back the memories for him.” ♦ — *Erin Lewis*

TRUE TO THE RED AND GRAY!

150 Years of student traditions

Whether they were displays of class solidarity or contests of physical prowess, traditions at Stevens over the years have fostered a sense of community, tying together generations of students and alumni. Some of the more recent traditions may look a little different than their 19th-century counterparts, but they still share the same goals of galvanizing school spirit and providing a much-needed respite from the rigors of academic life. Here are just a few. ♦ — *Ted Houghtaling*

▶ Readers can learn much more about historic Stevens traditions by viewing webinars presented by Stevens' Archives and Special Collections staff at stevens.edu/archives/virtual-history



A more recent and colorful addition to the list of Stevens traditions, The Duck Dance is taught to all first-years at the New Student Orientation and is performed at athletic events, Flock Party After Dark and other occasions to promote Stevens spirit and pride.

▶ Watch Attila and a group of Stevens students perform *The Duck Dance* at the 2019 Stevens Awards Gala at stevens.edu/duckdance



Calculus Cremation, 1888 to the late 1960s

The Calculus Cremation was an annual pageant started by the Class of 1890 where the "reviled" course of calculus was quite literally put on trial in front of the faculty and student body. After the student prosecutors argued their case before a jury of their peers, calculus was inevitably found guilty and its effigy "consigned to oblivion by conflagration" on the athletic field in a spirited bonfire.



Flag Rush, 1907 to the late 1930s

As with the Cane Spree, the Flag Rush provided an opportunity for the freshman and sophomore classes to vie for bragging rights in the eyes of their peers. For this competition, the sophomore class planted a pole with a flag affixed to the top in the middle of the athletic field. They then defended it from the onslaught of freshmen who climbed atop their opponents to wrest control of the flag.



Varsity Show, 1920s to 1930s

Stevens has a long-standing performing arts tradition stretching back to its earliest years. The varsity shows of the 1920s and 1930s brought together the collective talents of the student body, who wrote, directed and performed a full-length vaudeville show before the public — often held in the ballroom of the historic Astor Hotel in Manhattan. Many of the themes centered around romance, college life and light-hearted lampooning of the faculty and administration.

Wittpenn Walk

The Wittpenn Walk tradition started in 2018 and symbolizes the start and finish of a student's academic career at Stevens. During fall Convocation, first-year students make their way up Wittpenn Walk — which is lined with cheering upperclass students, faculty, and administrators — and proceed to the ceremony in Canavan Arena. As seniors, students take a similar path as their first year, only winding down Wittpenn to the Babbio Center, with a sunset toast on Babbio Patio to celebrate the end of their Stevens journey.



Cage Ball, 1919 to 1980s

Cage Ball was the last addition to the early interclass matches at Stevens. As stated in the original rules from 1919, the opposing classes would attempt to “push a large, inflated ball down the athletic field and through the opposing team's goal posts — all while not letting the ball touch the ground.” Unlike the Flag Rush and other earlier competitions, Cage Ball was played at Stevens well into the 1980s.

Alumni Reunion Day

On June 9, 1908, a campus-wide event was organized to provide a setting where “the ties of new and old college friendships could be renewed and strengthened once again.” The event was called Alumni Reunion Day and, along with the usual festivities, included a costume contest and parade! Over a century later, Alumni Day — which over the years became Alumni Weekend — remains a beloved annual tradition for the entire Stevens community (sans the costumes and parade).



Cane Spree, 1889 to 1980s

In 1889, a group of students started a formal athletic competition to officially settle the question of who was the physically superior class. The Cane Spree, as it was called, involved representatives from each class wrestling for control of a wooden cane placed in the middle of the athletic field. Earlier matches were often quite violent and inevitably ended with multiple trips to the infirmary.



MILE SQUARE CITY YESTERDAY AND TODAY

From tough, blue-collar town to polished enclave for young professionals, the transformation of Hoboken has been nothing less than astounding. And while its waterfront has changed forever, essential parts of the city's identity — neighborhood landmarks and gems, river breezes, proud residents and families — remain. Here's a brief walk around the Mile Square City, then and now. — *Beth Kissinger*

Benny Tudino's

"Benny's" is still serving up monster slices — and attracting a new generation of Stevens devotees — since Bari "Benny" Drishti set up shop at 622 Washington St. in 1968. One fan: Then-Vice President Joe Biden, who wolfed down a slice while touring Hurricane Sandy-damaged Hoboken Terminal in 2012. Here's a moment from 1981 (at top), and a sunny day this past December.

VINTAGE PHOTO: ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY; CURRENT PHOTO: JEFF VOCK



The Clam Broth House

Longshoremen, celebrities and Stevens students sat elbow to elbow at this famed bar restaurant (circa 1899) known for its free hot clam broth, sawdust and clam shell-covered floors and old-world ambience. This landmark (shown at top in 1980) was demolished in the early 2000s, reopened in a nearby building and closed again in 2010. But its iconic sign survives above Mike's Wild Moose Saloon, at River and Newark streets.

VINTAGE PHOTO: NAYDA BROWN; HOBOKEN HISTORICAL MUSEUM COLLECTION; CURRENT PHOTO: JEFF VOCK



Washington Street

Hoboken's grand thoroughfare has evolved over many decades to meet the needs of generations of families, Stevens students and young professionals. Here's a view of Sixth and Washington streets, during the Memorial Day Parade of 1947, and that same spot this past winter.

VINTAGE PHOTO: PHOTO COURTESY OF JOHN AND ANGELA LEAHY; HOBOKEN HISTORICAL MUSEUM COLLECTION; CURRENT PHOTO: JEFF VOCK

Fifth Street Pier, then and now

A quiet moment, near the Fifth Street Pier, in 1970 (below, top photo). Today, this site of Frank Sinatra Park, home to theater, concerts, festivals and a restaurant, attracts numerous families, fans and even kayakers. The Swingadelics perform at the park's amphitheater in the bottom photo, in 2015.

VINTAGE PHOTO: ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY

2015 PHOTO: JEFF VOCK



On the Waterfront

The view from Castle Point has never ceased to impress. But watching the evolution of Hoboken from the New Jersey side has also been a revelation. At near right is a view from 1984, with Stevens' "Big John" plumbing research tower along with deteriorating piers of the city's seafaring past. Today, Hoboken's waterfront offers much-needed green space and recreational areas, with parks built where mighty piers once stood.

VINTAGE PHOTO: MEL KIERNAN; HOBOKEN HISTORICAL MUSEUM COLLECTION; CURRENT PHOTO: JEFF VOCK



COMMUNITY FRONTIERS

STEVENS IS A GLOBAL COMMUNITY of students, alumni, faculty, staff, donors and friends united by a tradition of excellence, leadership and innovation. Though the university began as an all-male institution dedicated solely to mechanical engineering, Stevens has evolved over time, welcoming students of all backgrounds and varied interests to study a wide variety of subjects within a unique, technology-centered curriculum. “Community Frontiers” traces our continuing path forward to building a more diverse and inclusive Stevens.

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DUCK DATA

Stevens alumni in brief

They can be found on six continents and in all 50 U.S. states. They work in a variety of fields and industries and have won some of the world's most prestigious awards for their life's work. Here are some interesting facts and figures that offer just a glimpse of our extraordinary Stevens alumni.

WHO THEY ARE

Total number of living alumni:

49,875

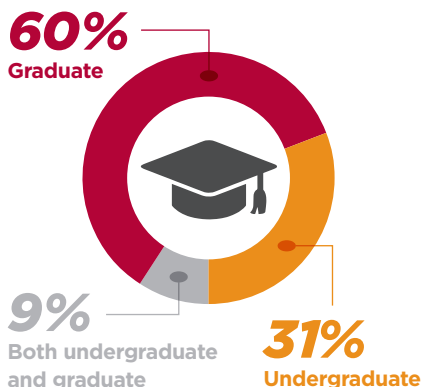
Gender breakdown:

22%
Women

78%
Men

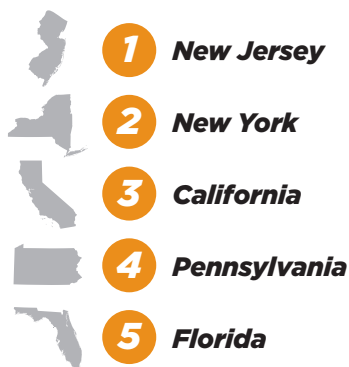


Degrees earned:



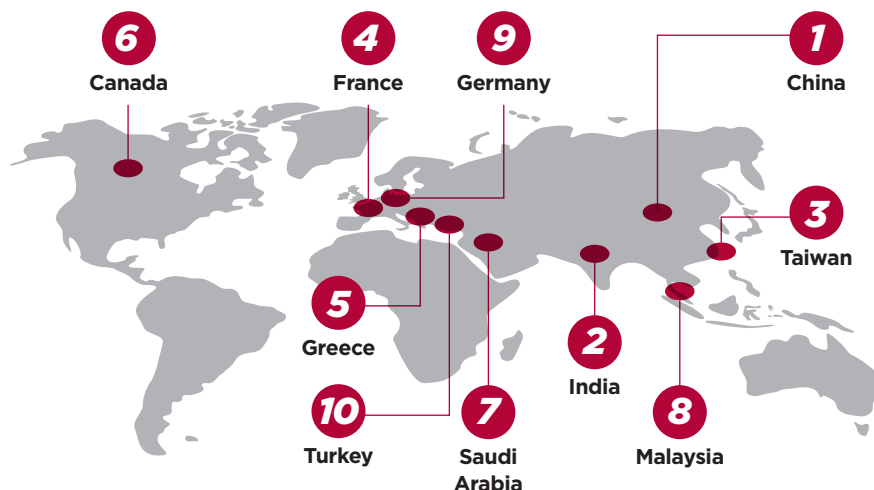
WHERE THEY ARE

Our alumni can be found in all 50 states in the U.S. Here are the top 5:



(Source: Stevens Alumni Database)

Our alumni live in 104 countries across all corners of the globe. Here are the top ten countries where you are most likely to find Stevens alumni living outside of the U.S.



ACHIEVEMENTS

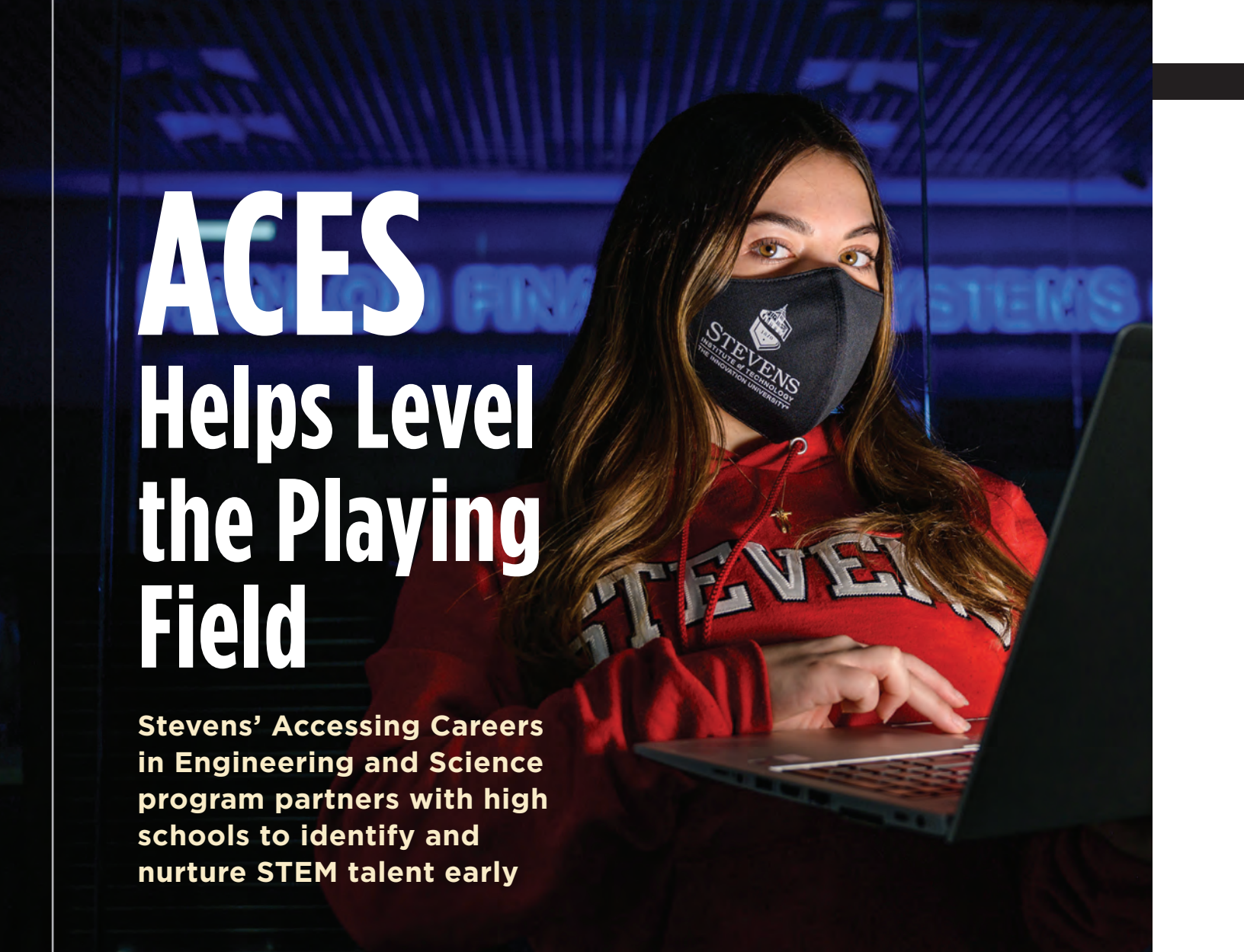
NOTABLE AWARD WINNERS

- ✦ **Medal of Merit:** John Blandford Class of 1919
- ✦ **Nobel Prize for Physics:** Fred Reines '39 M.S. '41, Hon. D.Eng. '84
- ✦ **Emmy and Peabody Awards:** Richard Reeves '60, Hon. D.Eng. '87
- ✦ **Emmy Award:** Chuck Dages '70 (3-time winner) and Mark Schubin '71 (2-time winner)
- ✦ **Grammy Award:** John Newton '71 (9-time winner)

THE INTERNATIONAL STAGE

- ✦ **Leon Febres Cordero '53,** President of Ecuador, 1984 to 1988
- ✦ **Alberto Furmanski '72 M.M.S. '74,** former Colombian ambassador to Spain
- ✦ **Muhammadou M.O. Kah '92 M.S. '92 Ph.D. '99,** ambassador extraordinary plenipotentiary for the Republic of The Gambia to Switzerland; permanent representative to the United Nations Organisations, Geneva.

▶ Meet more notable alumni on page 48 or at Stevens150.com.



ACES Helps Level the Playing Field

Stevens' Accessing Careers in Engineering and Science program partners with high schools to identify and nurture STEM talent early

For many of Stevens' incoming freshmen, it was a long and challenging road to arrive on campus for the fall 2020 semester, especially in the midst of a pandemic. But, for some of those students, the obstacles they've encountered have been far greater than others.

Students from underserved communities and under-resourced backgrounds can face long odds when it comes to pursuing a STEM education and career, particularly those who are underrepresented in STEM. That reality is reflected in the racial and ethnic disparities that exist in the technology industry, where Black employees make up less than 8% of the U.S. hi-tech workforce and Hispanic employees even fewer. (Source: "Black and Hispanic underrepresentation in tech: It's time to change the equation," *Brookings*, March 28, 2018.)

"These inequities are unacceptable," says Stevens President Nariman Farvardin. "Talented students from all socioeconomic, racial and ethnic groups deserve opportunities to pursue study in disciplines that fuel our nation's economy. Increasing these opportunities will result in a more diverse workforce."

That's why three years ago, Stevens launched the ACES (Accessing Careers in Engineering and Science) program — one of President Farvardin's highest-priority initiatives.

It's a partnership among Stevens, high schools in underserved communities and the corporate sector, with the aim of increasing access to educational and career opportunities for underrepresented minority (URM) students and providing the resources and support needed for them to succeed.

Partnering with high schools to help students pursue their dreams

At the heart of the program are the ongoing relationships that have been built with ten partner high schools in New Jersey and New York. Stevens provides these schools with educational support for students, school counselor and STEM teacher professional development, and tuition-free

Left: Angelene Veloce, seen here on campus in fall 2020, is pursuing an accounting and analytics major with a minor in finance at Stevens. Participating in the ACES Pre-College program helped her discover that her interests were more in line with business than biology.

scholarships for students to attend Stevens' summer Pre-College programs.

"The partnership with Stevens has been amazing," says Samantha Crockett, college to careers program manager at KIPP Newark Collegiate Academy, a high school in Newark, New Jersey. "Stevens is constantly reaching out and offering different programs for our students and faculty, including career development workshops and sessions for students and parents to receive help with their FAFSA applications. But the most impactful program for our students is the Pre-College summer program, which they could never dream of attending without the full scholarships provided through ACES."

ACES students join other high schoolers for one- or two-week summer sessions with a host of courses to choose from, including biomedical engineering, introduction to coding, engineering boot camp, business explorer and cybersecurity, to name just a few. While in past years, students have lived on campus and had the opportunity to have a full college experience, because of the pandemic, summer 2020 sessions were held remotely.

"We had four students participate in this past summer's program and despite COVID and the online experience, they were super excited by the opportunity," says Crockett. "It really opens their eyes to the many different entry ways into STEM — even through business and law. It's also a great way for them to learn what a field really entails and if it's the right choice for them."

Didier Jean-Baptiste, dean of seniors and college placement at St. Benedict's Preparatory School in Newark, New Jersey, another ACES partner, agrees. "Many of our students don't have parents working in these fields, or even ones who have gone to college. This program gives them the confidence that 'yes, I can do this,' and allows

them to see the path forward. It inspires them to find a way to pursue their dream."

For many ACES students who have attended the Pre-College program, pursuit of that dream continues with their STEM studies in college. Those who matriculate at Stevens receive ongoing support through the program, including financial aid, academic support and peer mentoring. They are also provided opportunities for co-operative education, internships and networking with companies that can help set them on a successful career path.

the Pre-College program from 16.8% in 2016 to 21.1% in 2019 and in the freshman class from 12.8% in 2016 to 17.4% in 2020. In addition, first-year students who enrolled at Stevens in 2018 and received an ACES scholarship had a 97% retention rate and an average GPA of 3.3 after their first year. By fostering and nurturing diversity, initiatives like ACES can help improve data showing that about 37% of Latino and 40% of Black STEM students switch majors as undergraduates, compared with 29% of white STEM

"I credit ACES and the Pre-College program with making it clear to me what I wanted to pursue in college and that I wanted to do it here at Stevens."

— Angelene Veloce

For Angelene Veloce, a current Stevens student, ACES has made all the difference. Her experience while attending the Pre-College program prior to her senior year of high school helped her figure out that laboratory research was not her thing and that business was.

"The Pre-College program really was a transformational experience for me. If I hadn't had the chance to attend and the scholarship to pay for it, I probably would have gone down the wrong path of study, which could have been really detrimental to my ability to graduate in four years," says Veloce. "I credit ACES and the Pre-College program with making it clear to me what I wanted to pursue in college and that I wanted to do it here at Stevens."

Evidence of ACES success

ACES has not only made a real difference for the schools and students involved in the program, it has also helped Stevens increase the proportion of URM students attending

students. (Source: "Does STEM Stand Out? Examining Racial/Ethnic Gaps in Persistence Across Postsecondary Fields," *Educational Researcher*, April 2019.)

The program's accomplishments have not gone unnoticed. In addition to receiving full institutional support, with 100% of Stevens Board of Trustees members committing to help fund the initiative, ACES was recently recognized by the New Jersey Business and Industry Association with its Diversity and Inclusion Award and was honored with the 2019 Innovation in Education Award by the New Jersey Tech Council.

"We believe ACES has the potential to be a national model to increase opportunities for talented, deserving students and to produce a STEM workforce that is representative of our nation's population," says President Farvardin. "A robust innovation economy depends on a deep and diverse talent pool, and ACES is an important tool to advance this important goal." ♦

— Janet Schiller and Thania Benios

SATURDAYS AT STEVENS

Art Harper Saturday Academy is inspiring local high school students to pursue a future in STEM

Many high schoolers might respond to the idea of attending classes on the weekends with an eye roll or a scoff of protest — this is not true of the enthusiastic students who participate in Stevens' Art Harper Saturday Academy.

This multi-year program is designed to inspire and prepare local high school students to pursue post-secondary education and careers in STEM-related fields. The Saturday Academy works with local high schools to find under-resourced and underrepresented minority students who demonstrate an aptitude for math and science but may not have previously

considered a career in STEM. Throughout ten Saturday sessions each year, students strengthen their math skills, engage in project-based learning experiences and enjoy a taste of the college experience by interacting with Stevens student tutors and working in labs on the Stevens campus. Students are eligible to begin the program as sophomores — it is the goal of program administrators to keep them coming back through their senior year of high school.

The gift of opportunity

Named for the late Art Harper '78, the program launched in 2019 thanks to a gift from Nate Davis '76 and support from Art's wife, Linda. Harper and Davis bonded during their time at Stevens through the Black Student Union, and through a shared commitment to giving back to their alma mater.

Both Davis and Harper have supported Stevens, especially with scholarships and initiatives in STEP, the Stevens Technical

Enrichment Program (which Harper participated in as a student, and Davis supported as a tutor to local high school students). In 2017, Davis was a leading voice in creating ACES (Accessing Careers in Engineering and Science), which partners with local schools in underserved communities to steer interested students toward STEM learning. Following Harper's passing in 2017, Davis was inspired to establish the Saturday Academy in his friend's memory, creating opportunity for a new generation. "I am a lucky man," Davis says. "I got an opportunity to go into all these fields and it changed my life ... because of that, my dream is now to help others experience the same thing."

The first two years

The first year of the program, taking place during the 2019-2020 academic year, served 19 high school sophomores with great success. An analysis of pre- and post-academy math assessments showed that student performance scores increased by 42.9% on average from the beginning to the end of the year. Students, their families and school administrators gave the program high marks, citing increased confidence in participants' academic abilities surrounding STEM and a clearer picture of their post-secondary education and career goals. While the final three sessions were held remotely due to the COVID-19 pandemic, all 19 students completed the program.

Most first-year participants returned to participate as juniors in the 2020-2021 academic year, along with a second cohort of 20 new sophomores. With pandemic



Above: Art Harper '78 with his wife, Linda, at the 2015 Stevens Awards Gala, where he received the International Achievement Award. Right: Nate Davis '76, seen here speaking at the ACES program launch event.



restrictions still in place, Edlyn Thompson-Mettle, Stevens' associate director for diversity programs, and her staff faced a daunting task: designing an immersive math and science curriculum to be taught entirely online. The team mailed supplies to the students and provided remote tech support to help them install software on their home computers.

Despite varying levels of equipment quality and Wi-Fi strength, Thompson-Mettle reports consistent attendance and engagement of all students as they tackle complex topics, including biomechanics and object detection using Raspberry Pi (a small device used to teach computer programming). "These students are seriously committed," she says. Many students lose their internet connection during class, so they log out and in intermittently throughout the lesson. Thompson-Mettle remembers a student disappearing from the screen after attendance was taken one day. When she reached out to check in, the student assured her that though her computer was down, she was on FaceTime with another program participant so that she could still watch the lesson. "This is why I love the program and these students," Thompson-Mettle laughs.

Grant Fowler, a Stevens senior, works with the Saturday Academy as a lab assistant and tutor for the project design component of the program. "The most rewarding thing about the program has been to see that initial spark of curiosity when the students are interested in learning the topics we are teaching," he says. "To pass down not only the knowledge, but also the mindset of seeking out knowledge ... is so cool to see as a mentor and tutor for the students."

Thompson-Mettle expects the program will demonstrate strong outcomes once again this year. The hard work of the Art Harper Saturday Academy staff combined with the dedication of student participants are a fitting tribute to the man who inspired it. "No one who is successful does it alone; you need help along the way," Harper once said. "I've been blessed to be surrounded by great people who've helped me along the way. It all started at Stevens with the great education I got there." ♦ — *Erin Lewis*

Saturday Academy students describe the program in their own words

Jennifer Salguero

Junior, North Bergen High School, North Bergen, New Jersey



"The classes I have taken at the Saturday Academy have been different from my high school classes because my school does not have a lot of resources compared to other schools. In the engineering class I took with the Saturday Academy, I was able to work in one of Stevens' laboratories, where I used high-level equipment that I had never seen before."

"In the past, I would have never considered a career in environmental engineering because I had not really learned about it. The Saturday Academy has helped me explore my options and exposed me to new ones."

Brandon Harding

Junior, North Star Washington Park High School, Newark, New Jersey



"The Harper Saturday Academy provided a lot of crucial information about how to properly program Raspberry Pi that I've been looking for. Participating in the Saturday Academy has really framed my possible future as an engineer and introduced the concept of software engineering. Before the program, I never really had any interest in software handling, but the Saturday Academy provided a fountain of knowledge that has allowed me to amass experience with software and develop an interest within the career."

Charly Castillo

Junior, Weehawken High School, Weehawken, New Jersey



"My favorite Saturday Academy experience so far was collecting water from the Hudson River for last year's science project, which was on water contamination in different water supplies (including the Hudson River, fountains on the Stevens campus and water from home). After collecting that water, we tested its nitrate/nitrite, chlorine, and pH levels using test strips, which was fun."

"Participating in the Saturday Academy has strengthened my love for science. Right now, I'm planning on majoring in astrophysics, and I believe that the classes I've taken have given me a solid foundation for STEM in college."

A STEP Conversation

Two generations share insights on one of Stevens' most beloved programs

When STEP alumni come together, there's a special bond that defies time, distance and generations.

That was the case when the Stevens Technical Enrichment Program marked its 50th anniversary in 2018, with several generations of STEP alumni filling the Howe Center's Bissinger Room to capacity to celebrate the triumphs of this program that strives to increase the number of underrepresented students in STEM fields, many of them Black, Hispanic, first-generation and low-income students.

From academic support and career advising to emotional support, STEP has

made a positive difference in the lives of its approximately 1,000 alumni, who have made important contributions in fields as diverse as medicine, engineering, law, business and education. And the good work of STEP — which currently serves 235 students — continues.

One alumnus and a soon-to-be alumna met virtually this February to share STEP memories and to reflect on the future. Earle Derry '84, a mechanical engineer and long-time director with Corning Incorporated, spoke with Concetta Spector '21, a biomedical engineering major who plans to work in medical device research and development.

Here is an excerpt from their inspiring conversation, conducted via Zoom and through emailed responses.

STEP has enjoyed incredibly successful anniversary celebrations, many mini-reunions — and enduring friendships. Can you talk about this incredible bond?

E.D. I keep in touch with a half dozen people from STEP. It has been a 40-year bond with these friends. It's partly because you spent nine months together, for four years. And STEP had a very close-knit and supportive environment. Stevens created a kind of common struggle. There's a bonding in that as well. And engineers are similar people, too.

C.S. It's definitely the same today. I've met some of my best friends through STEP that were even older than me. But I know that if I ever needed anything, I could go to anyone in STEP and ask them, and they would be willing to help me no matter what. I still reach out to STEP alumni that I know who graduated two, three years before me. I've reached out for advice on classes, career advice, professional advice.

Do you have a special STEP memory?

E.D. STEP was there for anything that you needed — in or outside of the classroom. When I was in STEP's (pre-college) Bridge Program, Maz (longtime Stevens professor and STEP mentor Varoujan Mazmanian M.S. '71) and I were talking and he said to me: "There are people in the institute who don't know anything about your background, how smart you are, what challenges you had to overcome. But simply because of your inclusion in the



PHOTO: KEVIN MONKO

program, they feel you don't belong here. Don't let those people define you." And it was probably the most consequential conversation I've had in my life. In fact, I used that throughout my entire career. When I went back to our 50th STEP anniversary, I made it a point to talk to Maz about that conversation.

C.S. We had an advisor in the STEP program who gave us very similar words of advice. He did a presentation on "imposter syndrome." And basically, the whole point of that presentation was just reminding everyone that they do belong here. Everyone was offered the same opportunity, and everyone has the same chance to make a go of it at Stevens. But by going through STEP, you're also offered so many other resources that you can utilize. So, it really is a blessing.

Is there a faculty or staff member from the STEP program who really inspired you?

C.S. Dean Deborah Berkley M.S. '84 has always been an inspiration to me. Over my years at Stevens, I've received such kindness and generosity from her, in addition to experiencing and witnessing her willingness to go the extra mile for students. I've also seen her handle unanticipated and stressful situations with a positive attitude and composure, which I strive to do in my own life.

E.D. Maz stands out — for the five-minute conversation (mentioned above) that we had, in which he urged me to not let others define me. I continue to use it when faced with personal or professional challenges. I became more resolute.

I also recall the physics tutoring sessions with Dr. Snowden Taylor '50. I watched him patiently and tirelessly answer every question, walk students through the solution and ask questions to confirm understanding. This often went well into the night. I never knew where Dr. Taylor lived, but I knew it wasn't close, which meant he would get home in the early morning hours. Never once did I

see him get frustrated or rushed or make a student feel anything but confident. I became more supportive.

Tragically, due to a car accident, I became orphaned after only one semester at Stevens. Beyond the emotional stresses, with three siblings enrolled in college, it created a financial hardship. Understanding my situation, then-STEP Director Deborah Minor arranged a NACME (National Action Council for Minorities in Engineering) scholarship, which supported me through graduation. I became more companionate.

Why is the STEP program essential?

E.D. STEP is as relevant today as it was 50 years ago. For a myriad of reasons, women and ethnic minorities are still underrepresented in STEM fields. I think premier technical institutions have an ethical and moral obligation to address this national issue, and they are uniquely qualified to do so. STEP provides specialized and targeted support for its members, and in doing so, greatly enhances their likelihood of success. Without this support, many STEP participants may have been less successful academically or perhaps left Stevens or STEM altogether.

What did STEP teach you that has proven to be valuable in your career and in your life?

C.S. Through STEP, I was immediately exposed to so many people with diverse backgrounds and perspectives, and it has been incredibly valuable learning how to relate and listen to voices different from my own. I also learned how to use

the resources available to me and to make meaningful connections that can later help me in life.

E.D. I have had a successful career. When exploring what has separated me from my peers, my Stevens education certainly comes to mind. However, it alone, though required, was insufficient in driving my professional success. I attribute it not only to what Stevens taught me, but largely to the person that STEP helped me to become. STEP delivered for me the trifecta: motivation, academic support and financial support. Without STEP, I am certain that my engineering degree would have a different university seal affixed to it. What is most

amazing is that my story is far from unique. It can be told by countless alumni over the last 50 years — and will be told over the next 50 years. ♦ —
As told to Beth Kissinger



PHOTO: SUZANNAH HOOVER

FIRST-CLASS WOMEN

Stevens' first female undergraduates reflect on arriving at Castle Point 50 years ago

It wasn't until somewhat recently that Malena Aldecoa Higuera '75 M.M.S. '78 really understood the significance of her time at Stevens as part of the first undergraduate class to include women. "I was watching the Ruth Bader Ginsburg movie ('On the Basis of Sex'), and she was fighting for women to have credit cards. But I got my first American Express in 1975, and I tell you all my ex-husband's credit cards were under *my* name," she says with a knowing laugh. "I was so focused on my studies, I just had no idea what

was going on in the world at the time. So, there I was, watching this movie with tears in my eyes, realizing that I was part of a movement and I didn't even know it."

Other members of the first class of undergraduate women were well aware of their opportunity to be a part of something groundbreaking. Martha Connolly '75 M.S. '75, whose mother Regina was one of the first women to become a commissioned ensign in the U.S. Navy in 1942, was inspired to attend Stevens with confidence. "My mother encouraged me to go to Stevens and to always know I was just as good as the men," she says.

Regardless of their mindset when enrolling at Castle Point, the women entering as freshmen in the fall of 1971 would find a common experience navigating

never hid from the fact that the Board of Trustees at the time approved the resolution to admit women by a very narrow margin.

Deborah O'Rourke '75 M.S. '80, now a visual artist based in Tucson, Arizona, after a long career as a research scientist, engineer and college professor, remembers that half the people on campus didn't want women undergraduates because they were afraid women would ruin the culture. "They thought we were there for husbands," she laughs. "But at the end of the first semester, when we'd made the dean's list, they shut up about us wanting husbands. It never really bothered me because I knew why I was there, and I had a thick skin."

The logistics of campus that first year also presented challenges. Connolly, the first woman to receive a Ph.D. in biomedical



"So, there I was, watching this movie with tears in my eyes, realizing that I was part of a movement and I didn't even know it." — Malena Aldecoa Higuera '75 M.M.S. '78

their own paths, while also trying to fit in on a campus that already had a full 100 years of history they were perceived as disrupting.

The administration was supportive — "The deans were heavily invested in seeing the women succeed and really went out of their way to help us," Pat La Salle '75 says — but

engineering from Johns Hopkins University and who has worked in that sector for many years, remembers having to memorize which buildings had a women's bathroom — because so many did not. She also recalls mandatory 8 a.m. gym class because there were no separate accommodations, and the women had to clear out of the locker room before the men started to arrive.

“My mother encouraged me to go to Stevens and to always know I was just as good as the men.”

— Martha Connolly '75 M.S. '75

Gym classes proved an even bigger issue as the years progressed: At the time, physical education classes were mandatory for all four years but women couldn't participate in any of the team sports, as was required for first- and second-year students. As a result, the rule was changed so women could take individual sports, but options were limited. “By the time you got to be a senior, there was nothing left ... I think I took badminton my senior year,” says La Salle, who is a senior client partner in an IT outsourcing firm.

Lenore Schupak '74 participated in various extracurricular activities, as well as plunged into her academics, so much so that she earned enough credits to graduate in just three years, becoming the first woman to earn an undergraduate degree from Stevens.

“It was an honor to graduate among so many brilliant and creative students,” she says. During her time at Stevens, she fondly recalled that Coach Frank Partel invited her to manage the men's tennis and squash teams, and occasionally let her practice with them. “One of my jobs was to keep track of the stroke-by-stroke statistics, like wins, losses, etc., and I even garnered a letter and team jacket,” says Schupak, who also participated in the Yacht Club and was a *Stute* sports page photographer. (Being a “first” also characterized her career in the growing environmental field of the 1970s. Earning two master's degrees, Schupak later served as chief environmental officer at a global Fortune 100 company.)

Her classmates recall that certain other Stevens extracurriculars presented their own issues. “Several of us loved music and we loved to sing, so we went to try out for the Glee Club but we were all altos and there weren't enough of us to form our own group, so we couldn't join,” recalls La Salle. “By the time I was a junior or senior we had enough women to have

the breadth of voices needed, and we were finally allowed to join.”

Along with more activities available to women, subsequent classes brought many more changes. The women assimilated in a way they couldn't when there were only 19 enrolled and now they could fly under the radar. They served as mentors to the incoming classes and “the girls” was no longer a tag attached to them.

Even more than their on-campus experience, it has been the application of the lessons learned at Stevens — curiosity and how to approach and solve problems — that the women used to propel them to great success, personally and professionally.

“They thought we were there for husbands...

but at the end of the first semester, when we'd

made the dean's list, they shut up about us

wanting husbands.” — Deborah O'Rourke '75 M.S. '80



ILLUSTRATIONS: OLIVIA WISE



“It was an honor to graduate among so many brilliant and creative students.” — Lenore Schupak '74

And it is those shared experiences that continue to bond them today. Through Facebook, several alumnae from the classes of the '70s reconnected and eventually, in 2015, planned a reunion on the Jersey Shore hosted by Tina Doyle '75 M.M.S. '78. Alumnae from around the country attended, including O'Rourke, who made the trip from Arizona.

“It was so great to catch up with everyone and talk about where they'd gone in life,” she says. “We're all so independent-minded and problem solvers, and Stevens really fostered what had already been present in us; it was a vindication of how I was different than many of my non-engineering friends.”

Reconnecting after many years continues to be meaningful. “Life happens

— marriages, kids, jobs, divorces — but when we got together that first time, it was like no time had passed,” says Higuera, who spent her career in the chemical and cosmetic industries, and now serves as a technical and business consultant. And since it was such a good time, the alumnae decided to make it an annual event, canceling for the first time in 2020 due to the COVID-19 pandemic.

“I've been to every one of these reunions and there's never a pause in the conversation; we never run out of things to say or reminisce about, and we pick up right where we left off,” says La Salle. “I look forward to it every year.”

While their friendships blossom off campus, their spirit and courage still maintain a presence at Castle Point. Women now comprise 29 percent of the undergraduate enrollment, an achievement that would not have been possible without those brave young women from 50 years ago.



“As we celebrate this milestone 50th anniversary of undergraduate women at Stevens, it is hard to imagine the university without them. Women have such a strong presence and contribute to the vibrancy of Stevens in many ways. Women have excelled in academics and athletics and co-curricular activities,” says Susan Metz, Stevens' executive director of diversity and inclusion. “No doubt the Stevens that the first women graduates experienced was a very different place, a harder place to thrive. Yet these very special women made their mark and paved the way for others.” ♦ — Rebecca Markley

“The deans were heavily invested in seeing the women succeed and really went out of their way to help us.”

— Pat La Salle '75



Through 2021, Stevens is recognizing the 50th anniversary of undergraduate women with inspiring stories and events celebrating this transformational milestone.

To read these stories of Stevens women, learn about events and also share stories from the past, present and into the future, visit stevens.edu/womenatstevens

INNOVATION FRONTIERS

EMAIL. THE GANTT CHART. *Scientific management. Bubble Wrap®. The Stevens community has been developing solutions to problems large and small since the university's founding. This tradition of big thinking continues, with Stevens faculty earning grant funding to tackle COVID-19, climate change, Alzheimer's, aging, national security threats and more. "Innovation Frontiers" spotlights historical achievements as well as leading-edge work being done right now.*

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Meet 12 Stevens Innovators and Game Changers

They are innovators and artists, trailblazers and dreamers — Stevens alumni who made or are making a significant mark on the world through their extraordinary careers. While this could describe numerous graduates, here is a list of 12 game changers (in order of graduation year) who truly embody the Stevens spirit of innovation, of creativity — and of always reaching higher. ❖ — *Beth Kissinger*

Frederick Winslow Taylor Class of 1883

Taylor created an entirely new field: scientific management. Applying engineering principles and time study to production and shop management, scientific management is still being refined and used today. Taylor's seminal 1911 work, *The Principles of Scientific Management*, laid out his theory, as he went on to earn more than 40 patents and work in industry, including as general manager of the once-mighty Bethlehem Steel.



Charles Stewart Mott Class of 1897 Hon. D.Eng. '37

He sold his wire and axle manufacturing business to General Motors and could have walked away, but he didn't. Mott went on to serve on GM's board for 60 years, from 1913 to 1973, and was deeply involved in the company's evolution. But perhaps his greatest impact came when



Far left, Charles Stewart Mott

he founded the Charles Stewart Mott Foundation in 1926. Today, his foundation has given grants in excess of \$3 billion in 62 countries (including his adopted hometown of Flint, Michigan), in the areas of education, the environment and civic society. And Mott, according to biographer Edward Renehan, has likely inspired generations of philanthropists, from Alfred P. Sloan to Bill Gates.

Alexander Calder Class of 1919 Hon. D.Eng. '69

He created some of the most iconic sculpture of the modern age — and changed the world of art. Fusing his love of

sculpture with his engineering skills, "Sandy" Calder was most famous for the mobile, a form of suspended kinetic sculpture. His work can be found in the permanent collections of the Museum of Modern Art, the Whitney and the Guggenheim, among other renowned museums, and his monumental sculptures grace public spaces across the United States, Paris, Tel Aviv, Mexico City and many other locations around the globe.



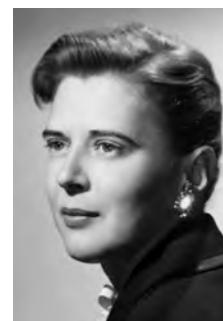
Frederick Reines '39 M.S. '41 Hon. D.Eng. '84

Reines actually helped to prove the Big Bang theory — by discovering a key particle that had eluded scientists for decades. With fellow researcher Clyde Cowan, Reines discovered the neutrino, a particle with no charge and very little mass. Their discovery would fuel a chain of theories and discoveries in particle physics and astrophysics that continue today. And it would win Reines, along with Cowan, the 1995 Nobel Prize for Physics. (Read more about Reines on page 50.)



Beatrice A. Hicks M.S. '49 Hon. D.Eng. '79

This engineering executive and inventor of the gas density switch was way ahead of her time in so many ways: studying engineering in the 1930s, when few women did; becoming the first woman hired as an engineer with Western Electric; serving as vice president of the engineering firm Newark Controls; and later running her own consulting firm. One of her greatest legacies: as co-founder and the first national president of the Society of Women



Engineers (SWE). Today, SWE — which has an active student chapter at Stevens — claims 42,000 members worldwide and is a global advocate for women in engineering and technology.

David Farber '56 M.S. '61 Hon. D.Eng. '99

This “grandfather of the internet” enjoyed a stellar career in industry (Bell Labs, the Rand Corporation) and academia, with professorships at the University of Pennsylvania, the University of California at Irvine and Carnegie Mellon. He pioneered the early internet and cloud computing, and it was at the University of Delaware where he and a multi-university team created CSNet and NSFNet, two networks that connected computer science and other university science departments nationwide. This effort formed the methodology and original physical backbone of the commercial internet.



Aaron Cohen M.S. '58 Hon. D.Eng. '82

This son of Russian immigrants played a critical role in NASA's six successful lunar landings, as head of the Apollo lunar command and service modules (CSMs) program.

These two vehicles — true engineering marvels — were essential to landing astronauts on the moon and returning them safely home to Earth. Cohen later served as director of the Johnson Space Center in Houston from 1986 to 1993 and managed the space shuttle orbiter program.



Far left, Aaron Cohen

Richard Reeves '60 Hon. D.Eng. '87

From *Stute* columnist to *New York Times* chief political correspondent to presidential biographer, Reeves built an award-winning career in journalism, as a witness to history. His accomplishments are staggering: author of 20 books, successful

careers in print and broadcast journalism (where he won an Emmy and a Peabody), nationally syndicated columnist in more than 100 newspapers. He authored much-admired biographies of presidents Kennedy, Nixon, Ford, Reagan and Clinton. And Reeves was a beloved teacher at the University of Southern California, guiding young journalists in their search for the truth.



Elizabeth Bailey M.S. '66 Hon. D.Eng. '00

Bailey, professor emerita at The Wharton School of the University of Pennsylvania, is a true trailblazer: the first female doctoral candidate in economics at Princeton University and the first female commissioner of the Civil Aeronautics Board. This former Bell Labs computer scientist also served as dean of the Graduate School of Industrial Administration at Carnegie Mellon University and was a longtime trustee at the Brookings Institution.



Mark Crispin '77

In 1986, while working with Stanford University, Crispin authored the Internet Message Access Protocol (IMAP), which made email accessible and efficient for users worldwide. IMAP allowed users to access email from multiple computers or mobile devices; improved handling of email attachments; and created the ability to organize and search email messages without downloading them. Crispin later worked as a software engineer for the University of Washington for 20 years before joining Messaging Architects, an email management and security firm.



Pam Cheng '92 M.Eng. '95

Cheng has been tackling the challenge of a lifetime — and an essential leadership role — in the life-saving goal of increasing the world's supply of COVID-19 vaccines. As executive vice president for global operations and information technology at AstraZeneca, her job has been to create supply chains for the Oxford-AstraZeneca vaccine (a partnership with Oxford University), from development to manufacturing to supply chain design. As the vaccine — with its low cost and easy storage — is seen as critical to the global fight against the coronavirus pandemic, Cheng continues her efforts and her leadership of about 19,000 of AstraZeneca's 70,000 global employees.



Marques Brownlee '15

He has interviewed Barack Obama twice — including a fascinating conversation just this past December — and has sat down with Bill Gates, Elon Musk and Mark Zuckerberg to talk tech and life. Mostly, MK-BHD — his moniker for his impossibly popular YouTube channel — is a major tech influencer trusted by millions. In early 2021, he claimed more than 13 million subscribers — with 2 billion-plus views — who tune in to hear his “crispy tech videos” reviewing everything from smartphones to cars to computers, “anything with an ‘on’ button.”





STALKING THE 'GHOST PARTICLE'

Nobel Prize winner Frederick Reines '39 M.S. '41 Hon. D. Eng. '84 tracked down the whisper of a particle that would balance our ideas about physics — and the universe.

The Big Bang theory dates to the late 1920s, when a Belgian astrophysicist thinking about Einstein's still-new general theory of relativity floated the astonishing notion that the entire physical universe might have its origin in a single, infinitely powerful point of energy that has been continuously expanding ever since one cataclysmic event.

It took a Stevens-educated physicist to help prove the astrophysicist right.

Forget, for a moment, the suspension of belief this mental experiment requires. (Einstein himself refused to accept the theory during his lifetime.) The idea also hinges upon confirmation of a number of complex calculations and physical elements. Most were gradually discovered or mathematically proven, but one key particle long eluded scientists' best efforts to locate it and confirm the theory for good.

Neutrinos, which were formed during the chaotic first moments following the Big Bang — and also constantly created by the natural radioactive decay of stars

and rocks — are important. Their presence is necessary to fully explain how things decay, since the measured total amount of energy given up during decay (at its most basic, nuclear level) isn't quite equal to the energy any given object begins with.

It is also believed that neutrinos' creation was the *only* brake that prevented the universe's matter and anti-matter from completely destroying one another soon after the universe's origin. If that had happened, we would not be here.

Neutrinos appear continuously around us. We are completely unaware of them as they constantly stream, at nearly light speed, from deep space — passing right through the Earth, striking nothing, announcing nothing — or gently waft off aging stones. It doesn't help that they have zero electrical charge (rare in the universe), nearly zero mass and only very rarely interact with any physical objects at all. As such, they're incredibly difficult to detect.

But they finally met their match in Frederick Reines.

Operas, nuclear reactors, a double flash

A child of Russian Jewish immigrants, raised in New York and New Jersey, "Fred" exhibited a remarkable aptitude for both science and music from a young age. As a boy he built radios from scratch and was a literal Boy Scout.

At Stevens he sang chorales, trained with a vocal coach from the Metropolitan Opera and completed both a bachelor's degree in mechanical engineering and a master's in physics, authoring a thesis comparing theories of optical diffraction.

After performing additional doctoral studies in nuclear fission at New York University (he continued to sing in operas in the city in his free time), Reines' path would lead him to the famed Los Alamos government laboratory in New Mexico, then the hub of America's nuclear weapons research. Soon enough, that work would lead him to the earth-shaking discovery that would bring him a Nobel Prize.

It was in 1956, with fellow nuclear

scientist Clyde Cowan, that Reines came up with a plan to observe large-scale nuclear reactions for signs of the elusive neutrino.

“Not very sensible, but we were attracted

reactor; the setup weighed tons, and was designed to capture flashes that should appear if neutrinos were arriving and reacting with the compounds in the water.

“Why did we want to detect the free neutrino? ... Because everybody said you couldn’t do it.”

by the challenge,” he would recall years later.

Initially, the duo designed an apparatus rigged to be set into the ground directly beneath a nuclear test site. That idea proved impractical, as the tremendous radiation produced by large blasts would obscure the tracks of the much gentler radiation of decay Reines and Cowan were pursuing. (It also wasn’t particularly safe for the two physicists to watch from close range.)

Instead, they opted to experiment on the site of a government-operated nuclear reactor in South Carolina believed capable of producing trillions of neutrinos per second when operational.

The duo filled a pair of thick, heavy tanks with specially prepared water and positioned them directly beneath the Carolina

The scientists took up their positions, waiting; they did not know exactly what to expect. The plant powered up, increasing nuclear reactions and radioactive decay. The tension must have been incredible.

Then the telltale flashes began. Only three times per hour, but those were enough: the elusive ghost particle had been identified by its tracks at last.

Their work wasn’t done yet. For five more months Reines and Cowan remained, repeating experiments, some with the nuclear reactor switched off, to verify their findings.

“The free neutrino is observable in the near vicinity of a high-fission reactor,” the pair finally wrote in a seminal paper, published in the science journal *Nature* later in 1956.

The finding was widely celebrated in both scientific and media circles, and would eventually fuel a chain of new theories and discoveries in particle physics and astrophysics that continue today.

Reines would eventually receive his Nobel Prize nearly 40 years later, in 1995.

“Why did we want to detect the free neutrino?” he asked in his acceptance speech, then answered his own question bluntly: “Because everybody said you couldn’t do it.”

Asking the difficult questions

Reines, who passed away only three years after receiving the world’s most prestigious scientific prize, continues to inspire countless students today through both his success and his courage to ask the very difficult questions.

His legacy still influences Stevens — he was named a foundational member of the university’s Hall of Achievement in 2016 — as well as scholars at Case Western Reserve University and the University of California, Irvine, where Reines went on to teach and perform research for decades afterward.

“It’s like listening for a gnat’s whisper,” he once said of his quest to pin down one of the tiniest particles in the known universe, “...in a hurricane.”

Frederick Reines, it turned out, was the one who knew just how to listen.

❖ — Paul Karr



Left: Reines opening a student ASME convention with a toast in 1939.

Right: Reines, at right, receiving his honorary degree from Stevens President Kenneth Rogers in 1984.

PHOTOS: ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY

Opposite page: Reines (far right) with research partner Clyde Cowan (far left) and team members in 1955.

PHOTO: SCIENCE SOURCE



THE SCIENCE OF FINANCE

New NSF-funded fintech center driven to meet business' real-world needs

Financial markets became a technology enterprise long ago, driven by the design of sophisticated algorithms, the rise of day traders working at high frequency and the growing influence of machine learning and A.I. And as financial technology — fintech — continues to drive efficiency and sophistication in investing, banking, risk management and insurance, the race is on to figure out what the future of fintech will look like.

Like many times in its history, Stevens is likely to be right on the front lines of that future.

The School of Business at Stevens won a planning grant from the National Science Foundation in 2019 to create a multidisciplinary research center exploring the future of finance. The planning phase has wrapped up, and Stevens — alongside Rensselaer Polytechnic Institute and a host of companies that pledged support for the center — is embracing the challenges of creating a one-of-a-kind research center to drive innovation forward.

“Finance wasn’t previously viewed as a science field,” says School of Business professor George Calhoun, director of the Hanlon Financial Systems Center at Stevens and a co-principal investigator on the NSF center, known as CRAFT — the Center for Research toward Advancing Financial Technologies. “Now, markets are high tech and very dependent on new and emerging technology, as well as scientific content in the study of what drives these markets.”

The NSF has awarded Stevens preliminary funding to create what it calls an industry-university cooperative research center, which will be based at Stevens and include teams from Stevens, RPI and industry. One driving mission: to solicit involvement from companies to ensure research done by university faculty has a practical orientation that addresses real-world needs. Notably, it’s the first such NSF center dedicated to fintech research. Stevens is now awaiting NSF approval to move CRAFT beyond the

preliminary phase, which would give the center annual funding of \$750,000 for as many as ten years, as faculty work to sort out the challenges of interdisciplinary, interscholastic research.

Last fall, more than 200 professionals in industry and government registered for CRAFT’s official launch — a virtual, invitation-only showcase of some of the most promising finance research at Stevens and Rensselaer Polytechnic Institute, its partner in the IUCRC. Those who attended heard research presentations from faculty working in artificial intelligence, blockchain, green finance and financial risk analytics.

Bill Penders, a senior advisor at the New Jersey Economic Development Authority, attended the workshop and said he was excited to see NSF embrace fintech as a target for the IUCRC model.

“In five years, what we call fintech today will just be called banking. Everything from small payments to major investment decisions is all going to be integrated with technology,” Penders says. “Financial services is traditionally underrepresented, when it comes to technology, compared to other industries. This is the perfect time for more engagement between the industry, the academic sector and government.”

The next step for Stevens is to continue to solicit formal support from industry, including from the companies that attended the workshop.

“I was very excited to see the positive feedback from industry,” says Stevens School of Business professor Steve Yang, principal investigator for CRAFT. “We heard from various sectors in the financial industry, who are in agreement that they need this kind of research to consider regulation and policies, as well as the development of fintech and innovation generally. Looking long term, I expect we will see a great deal of interest from companies — as well as other universities — looking to take part in this center.”

❖ — Joe Arney

PURSuing BREAKTHROUGHS

SSE expands its healthcare research

The COVID-19 pandemic cast a harsh light on the state of large-scale healthcare systems around the world. As government and private entities continue to grapple with unprecedented healthcare challenges, Stevens'

School of Systems and Enterprises (SSE) is poised to make significant contributions.

Even before the pandemic, SSE had identified healthcare as a field in which Stevens researchers could have an impact. The school's strategic plan calls for expanding SSE research in a number of areas, healthcare among them.

Healthcare fits naturally into SSE's mission, says the school's dean, Yehia Massoud. SSE combines software engineering, systems analytics and industrial and systems engineering, among other disciplines, to teach students how to take an expansive, multifaceted view of complex, large-scale problems.

"As our faculty and students engage in leading-edge research that uses the tools of systems and design to make breakthroughs in healthcare, we will be making significant contributions to the health, safety and well-being of the world," he says.

To that end, SSE faculty have pursued research funding to advance their work in the healthcare field and succeeded recently in winning backing from the National Science Foundation (NSF), the National Institutes of Health (NIH) and other key sources.

These grants have supported faculty research on critical healthcare problems including the use of data analytics and machine learning, human/computer interaction and systems engineering tools to improve decision-making by physicians

and patients, and patient outcomes in chronic disease management.

SSE faculty are also working on understanding how artificial intelligence systems influence patient safety outcomes, and they are conducting research on "smart health,"

using smartphones to interpret human perception and to develop models of behavior based on mobile systems.

Here's a look at how four members of the SSE faculty are setting the pace for healthcare research at the school.

PROFESSOR SANG WON BAE'S research involves gathering information through sensors and applying artificial intelligence to develop algorithms that accurately predict human behavior for use in health monitoring and treatment delivery. One result of her work so far: a smartphone app that can predict — and intervene — before drinking gets out of hand. The app studies streams of sensor data continuously collected by modern smartphones, including the user's location, motion, phone usage and social interaction. Overall, Bae's goal is to design systems to support human decision-making and foster behavior changes by inferring complex mental states and risky behaviors in natural environments.

PROFESSOR ONUR ASAN focuses on advancing socio-technical changes in healthcare. He has been exploring how health information technologies, artificial intelligence-enabled technologies and organizational initiatives transform patient care, the coordination of care and patient safety. An NIH grant he received funds work on the impact of health-information technology on doctor-patient communication in oncology. Asan also earned an NSF grant for the development of computational tools to personalize care for patients with diabetes. His work includes the creation of training modules to educate clinicians about ways that patient beliefs influence trust and decision-making.

PROFESSOR FENG LIU is interested in developing machine learning models to provide better healthcare. His research aims to develop computational and analytic tools for fundamental neuroscience research into how our brain works and for clinical applications, such as discovering the biomarkers for brain disorders such as Alzheimer's disease and seizures. His research on the application of data mining on chronic diseases can support physicians' early-intervention decisions.

PROFESSOR RICHIE O. OYELEKE conducts research that cuts across multiple disciplines, with a focus on gerontechnology, which marries technology with the needs of older people. His research interests encompass smart health analytics, human-centered computing, software systems safety, optimal aging and digital health systems. He has applied his research toward efforts to embed intelligence into aging adults' everyday environments to optimize their independence, including work involving people with early-stage dementia. — Michael Markowitz

Research Driven

Stevens faculty seek answers to tough questions

What is happening in Stevens research today? Plenty. Here's a look across the university's four schools, at some of the important work being done — by some of our outstanding faculty — in areas that will have an impact on the future. As they ask many questions and pursue solutions, the work of these researchers shares a common theme: a drive to make the world a better place.

Can the logging industry be more environmentally friendly?

Adeniyi Lawal



The U.S. logging industry ships \$95 billion in containers of logs overseas annually — but at a great cost to the environment. The industry relies on the use of approximately ten million tons of methyl bromide (MeBr) — an ozone-depleting neurotoxin — in the shipping process each year, about half of which is released into the atmosphere.

Adeniyi Lawal, department chair and professor of chemical engineering at Stevens, has invented a way to convert MeBr into a profitable product — making it possible to cut the release of MeBr into the atmosphere to a negligible amount. He has applied for a patent on the research and partnered with the company Aeros Environmental to bring this technology to the market.

Lawal's new process converts the harmful gas into a safe and valuable byproduct (KBr, a metal halide), a commercial chemical with broad applications in medicine, both human and veterinary, among other uses. He has successfully demonstrated this process — which is both inexpensive and scalable — in the lab.

What's more, at 77 cents per pound, the sale of this byproduct will more than pay for the cost of the chemicals used in this process, resulting in a sizable profit. Lawal and his corporate partner see it truly as a win-win, both for the environment and for business. — *Kyla Buckingham*

How can machine learning evaluate corporate culture?

Feng Mai



How much can be deduced about a company's future from the way it talks about itself? Quite a lot, according to information systems assistant professor Feng Mai, who has developed a semi-supervised machine learning approach to measuring culture from corporate disclosures.

Conducting one of the first studies of its kind, Mai applied word-embedding modeling to Q&A sections of more than 200,000 earnings call transcripts over a seven-year period. This deep learning approach employs an artificial neural network to parse context, quantifying both the syntax and semantics of linguistic expressions. Using seed words to represent each of five cultural values, the resulting dictionary is used to score for innovation, integrity, quality, respect and teamwork.

With findings forthcoming in *The Review of Financial Studies*, Mai and his team from the Stevens School of Business demonstrate how stronger corporate cultures correlate with better long-term business outcomes and greater resilience during crises. In a subsequent working paper, Mai shows that, during the COVID-19 pandemic, companies with stronger cultures were more likely than their peers to support their local communities, pivot to digital technology and develop new products without aggressively cutting costs.

Mai's findings may help inform investor and employee decision-making, and the system can be adapted for use in other sectors. — *Kellie Walsh*

How can the U.S. protect its waterways?

Hady Salloum



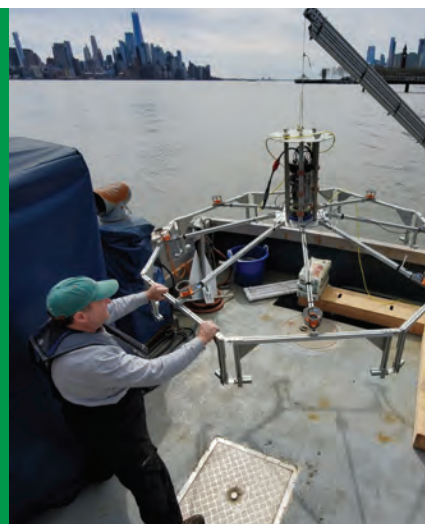
The Maritime Security Center and the Sensor Technology and Applied Research (STAR) Center Director Hady Salloum is leading a team to develop a cost-effective underwater acoustic sensor system for commercial port and waterway security and operations. The project is funded by a \$3.3 million contract from logistics technology company iModal Ground LLC.

Building upon a Stevens-patented technology called SPADES (Stevens Passive Acoustic Detection System) initially developed for the U.S. Navy, this portable passive listening system uses underwater microphones to detect, classify and track divers and small

watercraft by sound frequency. Sensor data is processed by algorithms, which compare the data to sound libraries and trigger alerts as appropriate.

Potential applications include intruder detection, toll collection, supply chain efficiency and cruise ship passenger safety. The underlying technology has also been modified by Stevens for submersible, unmanned aerial systems, aircraft and invasive insect detection.

The new prototype improves upon the original designs while taking advantage of advances in signal processing, sound technology, hardware and software. The STAR Center team is also engineering certain components in-house to make the product lighter, smaller, and cheaper to manufacture.



Stevens STAR Center researchers deploy a passive acoustic sensor in the Hudson River.

This higher-performance system will be faster, leaner, more accurate, more rugged and lower maintenance, Salloum says, while significantly lowering the bar to entry to technology previously available only to the military or large enterprises.

The team aims to have the prototype built, deployed, tested and refined by 2022. — Kellie Walsh

How can we better prepare for a nuclear attack?

Kristyn Karl, Ashley Lytle, Alex Wellerstein

A team of researchers from Stevens' College of Arts and Letters believes it is time to reevaluate and rebuild nuclear risks communications for the 21st century.

Funded by a grant from the Carnegie Corporation of New York, the Reinventing Civil Defense (RCD) Projects' team includes Kristyn Karl, assistant professor of political science, and Alex Wellerstein, assistant professor of science and technology studies. Together, they are evaluating the public's current understanding of nuclear warfare, while also supporting and measuring the effectiveness of modernized communications.

"Between the lack of awareness of and information about nuclear weapons and popular media accounts that dramatize these events, there was not a real foundation for understanding what it would mean in the real world," says Karl. This finding arose from two papers that Karl wrote with Ashley Lytle, assistant professor of psychology at Stevens, after receiving additional funding from the Thompson Family Foundation. The first, published in the *International Journal of Communication*, measured Americans' existing attitudes and knowledge

on nuclear threats. The second, published in the *Journal of Risk Research*, investigated the impacts of and confidence in nuclear messaging and how such recommendations affect people's behavior.

Factors such as living in an urban or rural environment, being a man or a woman and following the news through myriad media all showed correlational effects on a person's perception of nuclear risk. Yet, age proved to be the factor with the strongest individual effects.

In 2019, the team also organized *The Bomb and You* exposition, which presented nuclear messaging using everything from books to virtual reality. Their next step is to evaluate reactions to these projects and to uncover the best communications methods and mediums for the future. "Ultimately, we would like all Americans to be informed of how to respond to a nuclear attack if one were to happen," says Lytle. — Connor Durkin



How can ventilators work better and be more affordable?

Carrie Perlman, Alcendino C. Jardim-Neto



Patients infected with COVID-19 often develop severe breathing symptoms known as acute respiratory distress syndrome (ARDS), which must be treated by mechanical ventilation. Ventilators, however, can damage the lungs, and 40% to 50% of ARDS patients who require ventilation don't survive.

The laboratory of Carrie E. Perlman, biomedical engineering professor, whose research is supported by the National Institutes of Health, has proposed two new advances that could assist in the fight against ARDS: a lower-cost ventilator system that would allow more ventilators to

be constructed quickly and portably, and a red dye that appears to protect lung tissues from over-stretching and breaking during ventilator treatment.

Perlman and postdoctoral researcher Alcendino C. Jardim-Neto have constructed a new ventilator with commonly available materials, which costs just \$50 per unit. They hope that it can be quickly deployed in low-income areas or developing nations with limited resources.

Despite the best advances in ventilator design and production, however, the sickest patients do not always recover. One reason may be the damage that mechanical ventilation can do to already-weakened lungs.



Postdoctoral fellow Alcendino Jardim-Neto has developed a safe, low-cost ventilator to combat large-scale respiratory failure.

Perlman's lab has found that treatment with sulforhodamine B, a nontoxic dye used as a food coloring, can reduce ventilation injury and improve oxygenation. "We are not aware of any other lung therapy on the horizon with such potential," Perlman says. — Paul Karr



The Pitot rake, to measure nozzle-flow quality, in the Parziale lab's Mach 6 hypersonic wind tunnel.

How can we make air travel more efficient?

Nick Parziale

An unusual sight awaits visitors to Nick Parziale's laboratory: a hypersonic wind tunnel that spans about 60 feet and is made from steel and aluminum parts.

Parziale, an associate professor in the Department of Mechanical Engineering, is using the wind tunnel to study hypersonic aerothermodynamics, which is the study of how air behaves around objects traveling at hypersonic speed — Mach 5, or five times the speed of sound or more.

"The world will become smaller and air travel

to the other side of the globe won't be so strenuous if hypersonic flight becomes widespread," Parziale says.

Parziale and his lab have been developing novel methods to study and measure the gas flow, called the boundary layer, around vehicles moving at hypersonic speeds. These methods don't disturb the air flowing around the vehicle with obtrusive probes, but instead optically observe and measure gas flow activity.

Recently, the Department of Defense made large investments in Parziale's lab, including a \$1.2 million grant from the Office of Naval Research. The project, titled "Particulate and Precipitation Effects on High-Speed Flight Vehicles," aims to advance research in hypersonic flight. — Sharon Adarlo



Installing the wind tunnel, from left, are graduate students David Shekhtman, Ahsan Hameed and Muhammad Mustafa.

Can AI tackle fake news and challenging medical conditions?

K.P. (Suba) Subbalakshmi



To address critical economic, security and public health issues that arise from widespread misinformation (e.g., COVID-19 misinformation), electrical and computer engineering professor and founding director of the Stevens Institute for Artificial Intelligence K.P. (Suba) Subbalakshmi is developing an explainable AI framework to detect fake news from social media content.

The software analyzes posts and source profiles for such features as vocabulary complexity, emotion, imagery and follower count. Incorporating human observations with computer-identified patterns, Subbalakshmi's best-performing prediction model outperformed 11 rumor-detection algorithms for accuracy. Early findings were presented at the 2020 Association for Computing Machinery's Knowledge Discovery and Data Mining TrueFact workshop.

The engine's modularity and transparency help researchers fine-tune their approach while building trust in the system. Her team has also begun incorporating image analysis, a particular challenge because authentic photos may be rendered false by the context in which they are presented.

Subbalakshmi is applying similar methods to detect certain medical conditions, which may help shape future clinical trials or patient care.

By analyzing language from non-clinical patient conversations, she has identified previously unreported features that may indicate early-stage cognitive impairment from Alzheimer's disease. Results have been accepted for publication in the BIODDD 2020 conference proceedings

Similarly, her team is analyzing Reddit posts to determine whether linguistic characteristics indicate the presence and stage of clinical depression. — *Kellie Walsh*



PHOTO: WWW.RSLAB.COM

Professors Yi Guo, Ashley Lytle and Damiano Zanotto are exploring how in-shoe sensors, as well as mobile robots, can aid older adults.

Could robotic companions, in-shoe sensors help older adults 'age in place'?

Yi Guo, Ashley Lytle, Damiano Zanotto

Thanks to a multidisciplinary team of researchers from Stevens and Columbia University, elderly individuals may soon work with robotic companions that will help them maintain balance, motion and sociability. Supported by the National Science Foundation, the four-year research initiative explores how in-shoe sensors and mobile robots can keep older adults confidently on their feet.

The project is helmed by Stevens' own Yi Guo, professor of electrical and computer engineering and director of the Robotics and Automation Laboratory; Damiano Zanotto, assistant professor of mechanical engineering; and Ashley Lytle, assistant professor of psychology, from the College of Arts and Letters, along with Ashwini K. Rao of Columbia University Medical Center.

"Balance and motion can be significant issues for this population, and if elderly people fall and experience an injury, they are less likely to stay fit and exercise," Guo says. Therefore, the team is exploring how robots can lead these older individuals in walking sessions while the sensors provide ongoing feedback on gait, speed and pace.

"The robot companion will also offer teleconferencing tools to provide that interaction in an intuitive and transparent way," says Zanotto, noting social connectivity as especially important during the COVID-19 pandemic. For his research, Zanotto has received a grant from the National Science Foundation's prestigious Faculty Early Development Program (CAREER).

"We are interested in assessing whether the telepresence robot can be utilized to enhance social connectedness among older adults," Lytle says. "We are also interested in older adults' general attitudes toward technology, comfort with technology, attitudes and beliefs about aging, and perceived physical and mental health." — *Lisa Rouh*



The Climate Is Changing. Stevens Is Helping to Plan and Adapt.

Research efforts range from flood models and warning systems to re-engineered satellites, sensors, batteries and buildings



Arctic summers haven't been this warm in more than one thousand centuries. Both of the planet's ice caps are melting far more quickly than was previously believed. Texans lost power for a week during a devastating February cold snap, just five months after enduring record-rainfall storms. The year-round weather in New York City may resemble that of Arkansas within as little as 60 years.

It is now scientifically certain that the global atmosphere and the world's oceans are warming, driven by human manufacturing, agriculture and fossil fuel combustion.

And this doesn't just mean a pleasant mildness to future winters. Global warming also drives increased droughts and wildfires; stronger, more frequent hurricanes, tropical storms and winter storms; and dangerous coastal flooding and sea level rise. It's the reason fisheries are shrinking, crops and water supplies are already at risk, and coastal

and near-coastal properties are in peril. (Climate change-driven floods cause more than \$2 billion worth of damage in the U.S. alone each year, according to one recent Stanford University estimate.)

This planetary warming cannot be halted, but it can be predicted, adapted to and possibly slowed. During a 2020 virtual lecture at Stevens, PSEG Chairman and CEO Ralph Izzo discussed this urgent challenge and described a number of strategies that he believes will all be needed, in combination, to combat climate change. Those strategies include global reductions in carbon emissions; the development of novel energy conservation technologies; and increased investment in renewable energy sources and electric vehicles.

Stevens, it turns out, is working on each of these fronts.

Emergency planning, flood forecast expertise

As hurricanes, tropical storm-fueled rainy spells and crippling snowstorms become stronger and more frequent, emergency planners will need to deliver ever more timely and accurate public information to help us all prepare for storms, surges and floods.



Reza Marsooli's research on flooding in New York City's Jamaica Bay could help forecast the impact of climate change on other coastal regions as well.

Stevens is working on strategies that address global reductions in carbon emissions, the development of novel energy conservation technologies, and increased investment in renewable energy sources and electric vehicles.

Directed by professor and researcher Muhammad Hajj since 2018, Stevens' Davidson Laboratory has long provided significant national leadership in the modeling and forecasting of extreme events. The lab created and maintains two leading prediction tools, NYHOPS and the Stevens Flood Advisory System (SFAS), to anticipate and warn of extreme flood and surge events.

"Most days, the Stevens Flood Advisory System is the first piece of information I check in the morning," Caleb Stratton, chief resilience officer for the City of Hoboken and a key manager of the city's work on the \$230 million Rebuild by Design flood preparedness project, has said of SFAS. "Accurate records and projections of surge allow us to escalate our emergency operations in real time."

The university has also supplied data and modeling to New York City, down to the level of street-by-street flood forecasts; to the Port Authority of New York and New Jersey, including under a recently awarded \$4.9 million contract; to New Jersey Transit; and to the National Weather Service, among other entities. Davidson Lab researcher Philip Orton is part of the effort to predict, prepare for and combat future sea-level rise.

"We are talking about flooded streets, homes, high-traffic expressways and boulevards, subways," explains Orton.

Certain low-lying neighborhoods of New York City, his research has revealed, can expect to flood on a monthly basis in as little as 30 years. Orton advises vulnerable neighborhoods such as Canarsie and Hamilton Park with updated forecasts and modeling.

"The infrastructure of the city was not engineered to factor in either the sea rising or frequent flooding inland," he notes. "That's going to become a problem."

Reza Marsooli, another Davidson Lab researcher, models river and coastal flooding, storm surges and wave hazards during periods of changing climate. With approximately 95 million Americans — nearly a third of the U.S. population — residing in coastal regions, his methods can potentially assist cities and coastal communities nationwide.

Marsooli recently published findings concluding the Jamaica Bay neighborhood of New York City will soon begin flooding much more frequently as well.

“While this study was specific to Jamaica Bay, it shows how drastic and costly an impact climate change will make,” Marsooli comments. “The framework we used for this study can also be replicated to demonstrate how flooding in *other* regions will look by the end of the century, to help mitigate risk and best protect communities.”

Intelligent engineering for tomorrow's climate

Physically engineered solutions will also be urgently needed to respond to the challenge of climate change. Here, once again, Stevens researchers have stepped up with new research and innovations.



Mechanical engineering researcher Yi Bao, for example, develops greener, lower-carbon, more resilient building materials that appear to scrub greenhouse-warming gases from the air. A team led by materials scientists Fei Tian and Henry Du and chemist Junfeng Liang is developing a novel, fiber-based sensor coated with specially engineered hydrogels that can be integrated into a portable, reliable monitor of ocean salinity — a key marker of climate change.

Fellow mechanical engineering professor Chang-Hwan Choi develops nature-inspired surfaces (known as nanotextures) that can help prevent aircraft wings from

icing over. Choi's work in ice adhesion and nanoengineered anti-icing surfaces may be applicable to the winterization of wind-energy turbines, which iced and ceased functioning in Texas in January.

Physicist Knut Stamnes and his team in the university's Light and Life Lab collaborate with NASA and other partners to improve environmental monitoring of the planet. Stamnes' group develops and enhances methods to improve remote sensing and satellite imagery — producing clearer images of oceans, coastlines, reefs, glaciers and other features used to assess climate health. Most recently, the team has been tasked with creating algorithms to solve the problem of light bouncing off dust particles and scattering (blurring imagery) as it travels through Earth's multi-layered atmosphere and back from satellite-borne instruments.

Ocean engineering expert Jon Miller '99 works with federal, state and local agencies, industries and organizations to monitor coastlines and the effects of climate change and storms, designing innovative approaches such as beach nourishment and so-called living shorelines to protect coastal landscapes.

Boosting renewable energy, trimming emissions

Since much of the planet's warming is driven by carbon emissions, the creation and optimization of renewable, lower-emission energy sources will also play a key role in slowing the atmospheric warming process. Wind, solar, hydropower and other lower-impact alternatives will soon replace fossil fuels.

Rising to this challenge, Stevens research teams are investigating and developing novel energy production, consumption and storage technologies — and with the support of major government partners.

Working closely with the Department of Defense, for instance, environmental engineering professor Christos Christodoulatos Ph.D. '91 and his faculty and student teams in Stevens' Center for Environmental Systems conduct ongoing efforts to

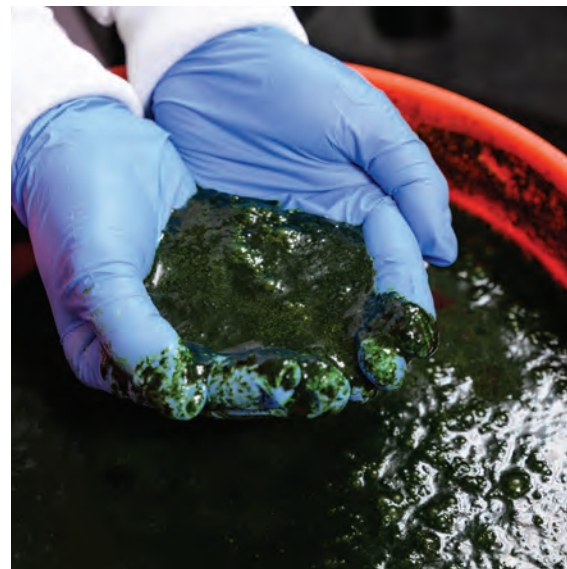
develop and enhance biofuel technologies to cultivate and utilize microalgae oil as an energy source.

Electrical and computer engineering professor Lei Wu, supported by multiple Department of Energy funding awards, designs artificial intelligence-powered technologies that can optimize the energy efficiency of power grids.

Mechanical engineering professor Nick Parziale models and tests designs for new types of biomass energy generators; the research is protected by a U.S. patent issued in 2019.

And systems researcher Philip Odonkor, an expert in net-zero energy building clusters who joined Stevens in 2019, combines data about energy use in structures with artificial intelligence techniques to leverage insights and automate and optimize energy use.

“As a leading technology institution located on a major estuary in a major metropolitan area, Stevens has long produced research aimed at forecasting storm surges,” concludes Vice Provost for Research & Innovation Dilhan Kalyon. “We will continue to assist communities and engineer new technologies for future climate change.” ♦ — Paul Karr



Christos Christodoulatos Ph.D. '91 and his research team are working to convert munitions wastewater into biofuel using microalgae oil.

THE NEXT FRONTIER

***THE TIMES WE LIVE IN** are more uncertain than ever. While a global pandemic, climate change and political and social unrest dominate the headlines, it's hard to know what tomorrow will bring, let alone the next few years. Though Stevens researchers haven't invented a time machine (yet), we offer some insight into "The Next Frontier" with help from our promising young alumni, ingenious professors and President Nariman Farvardin.*

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STEVENS ALUMNI: 40 UNDER 40

For the past 150 years, Stevens graduates have used their hard-earned degrees to make a difference in fields as numerous and diverse as they are. The newest generation of alumni stands ready to continue this tradition of innovation in industries and organizations crucial to the progress of humankind as we reach toward our next frontier. Recommended by Stevens faculty and staff, these 40 promising alumni under the age of 40 are making a difference in aerospace, finance, healthcare, technology, law, entertainment, sustainability, defense and more. Here, in their own words, these inspiring individuals share their greatest accomplishments so far and vision for the future.

Caroline Amaba '12



B.S. Computer Science,
B.A. Visual Arts &
Technology
Staff Software Engineer,
Buzzfeed (Buzzfeed Tech)
NEW YORK, NEW YORK

"I've been fortunate to give talks to usher in more women and nonbinary young people of color into software engineering. In the future, I will create a BIPOC (Black, Indigenous and people of color)-centered digital marketplace for creatives, specifically in gaming spaces, that is fair and safe."

Jose Angeles '19



B.E. Electrical Engineering
Financial Services —
Technology Consultant
Staff, EY
HOBOKEN, NEW JERSEY

"Mentorship has always been one of my passions and has helped me excel at Stevens and in

the workplace. In the future, I hope to establish my own foundation to recognize and support future generations of leaders in innovation."



Martin Angus, Jr. '18

B.S. Business &
Technology
Account Executive,
MSE Healthcare,
Gartner; published songwriter and author of novel,
Outside With Elephants

HOBOKEN, NEW JERSEY

"As a former program coordinator for Soccer Without Borders, I used soccer to help hundreds of immigrant, refugee and asylum-seeking youth attend college. My greatest future ambition is to continue to expand my territory and use my platform to help people find their voice — whatever that is for them."

Kevin Barresi '16 M.Eng.'16

B.E. Computer Engineering, M.Eng.
Computer Engineering
Chief Technology Officer,
FinTech Studios

NEW YORK, NEW YORK



"As CTO and co-founder of FinTech Studios, I built the company from idea to successful business with 20-plus employees and millions in revenue to date. I hold advisory roles and an Edison Patent Award for my work in data analytics and cybersecurity."

Khadeejah Bilal '09

B.E. Civil Engineering
Vice President, U.S. Head of Regulatory
Middle Office, Asset Management
Operations, Goldman Sachs

JERSEY CITY, NEW JERSEY

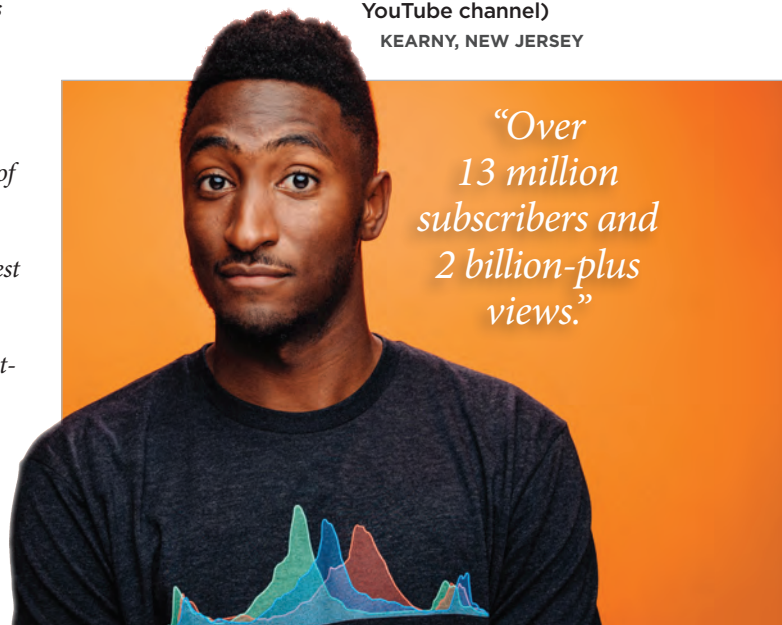
"Currently, being able to influence diverse recruiting into finance while holding space for Black women and women of color to arrive authentically and excel in a male-dominated industry is my greatest accomplishment. I hope to continue to do so as I advance in my career."



Marques Brownlee '15

B.S. Information Systems
Founder and Producer at MKBHD
(Award-winning tech-focused
YouTube channel)

KEARNY, NEW JERSEY



"Over 13 million subscribers and 2 billion-plus views."

Lindsay Crossan '14 M.Eng. '14

B.E. Mechanical Engineering, M.Eng. Systems Engineering
Spacecraft Deputy Program Manager and Lead Systems Engineer, Millennium Space Systems, A Boeing Company
EL SEGUNDO, CALIFORNIA

"My accomplishments include systems engineering leadership and execution on multiple government and commercial Boeing satellite programs, including the O3b mPOWER constellation, and leading peers in LX, Boeing's international, advanced leadership development program. I am inspired to pursue increasingly impactful leadership responsibilities."



Stephen Crouch '10 M.S. '10

B.S. Physics, M.S. Physics
Radar — Corporate Development at Aurora (formerly Blackmore Sensors)
BOZEMAN, MONTANA

"Leading Blackmore as CTO from inception to acquisition by Aurora in three years was a wild ride. The FMCW lidar we developed is central to Aurora's self-driving sensor stack. I'm most excited to push the boundaries of sensing for autonomous vehicles."



Suzanne D'Addio '07

B.E. Chemical Engineering
Director, Discovery Pharmaceutical Sciences at Merck & Co., Inc.
WEST POINT, PENNSYLVANIA

"I look forward to making an impact with every opportunity that comes my way, from enabling technological advancements that improve patient convenience and compliance, to fostering the development of the next generation of pharmaceutical researchers."



Philippe de Lurand Pierre-Paul '12 M.S. '14

B.E. Electrical Engineering, M.S. Management
Product Manager, Google Assistant, Google
MOUNTAIN VIEW, CALIFORNIA

"Everyone has a right to privacy regardless of their socioeconomic status or tech literacy. I am proud of my work in building a digital assistant that helps millions get things done while keeping their personal data private, safe and secure."

Annie DeStefano '12

B.S. Business & Technology
Director of Fintech at Silicon Valley Bank
NEW YORK, NEW YORK

"I am proud to have helped consumers by launching the Marcus by Goldman Sachs platform, and helping entrepreneurs of fintech companies to change the landscape of financial services in America. Looking forward, I am energized to support advancement of women in finance."



Brian Donohue '11

B.S. Computer Science
Director of Product Engineering at Pinterest
SAN FRANCISCO, CALIFORNIA

"In my previous role as CEO of Instapaper, I managed the sale of the company to Pinterest, where I continue to be employed as the director of product engineering. My future ambition is to become head of engineering for a mid-to-large-size tech company."



Rebecca Dunn '15 M.Eng. '15

B.E., Civil Engineering;
M.Eng., Civil Engineering
Project Engineer, McLaren Engineering Group
WOODCLIFF LAKE, NEW JERSEY

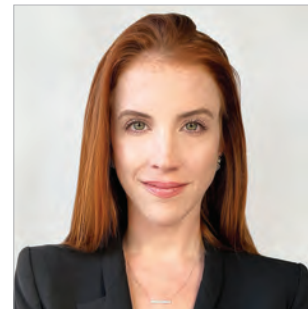
"My career has been rewarding by helping bring over-the-top concepts and unique immersive experiences to life for the audiences of icons like Lady Gaga and the Rolling Stones. I'm looking forward to sharing more feats of engineering with everyone again soon!"



Mary Michelle Easter '15

B.E. Mechanical Engineering
Mechatronics Engineer, NASA Jet Propulsion Laboratory; Founder of STEM educational initiative, Mind Makers
PASADENA, CALIFORNIA

"I served as mechanical lead for over 20 actuators for the Sentinel-6, SWOT, NISAR and MAIA satellite missions, which study air pollution and the effects of climate change. I also served as deputy design lead and test lead for the VITAL ventilator project, in response to COVID-19."



Angelo Falabella '19 M.S. '19

B.E. Environmental Engineering, M.S. Sustainability Management
Sustainability Analyst, NYC Department of Environmental Protection, Bureau of Engineering Design and Construction
NEW YORK, NEW YORK

"My greatest professional accomplishment so far has been integrating solar panels and green roofs into NYC DEP's multi-billion-dollar water and wastewater capital program despite the budgetary constraints of the pandemic, through a focus on long-term, triple-bottom-line thinking."



Taylor Fowler '14

B.A. Music & Technology
Title Operations Project Manager
(Europe, the Middle East, and Africa),
Netflix

AMSTERDAM, NETHERLANDS



"My greatest professional accomplishment has been overseeing end-to-end project management on 'Queen Sono,' the first Netflix-produced original series from Africa. I minimized risk to protect the product member experience across all platforms and devices, spanning 30-plus languages, to entertain members globally."

Bryan Franklin '11

B.S. Business & Technology
Program Officer, Local Initiatives
Support Corporation (a national commu-
nity development organization)

WASHINGTON, DISTRICT OF COLUMBIA




"I will use my abilities to pursue a world in which my Black daughter's opportunity in life will not be limited by her race, gender or identity, but she and every child will have the chance to actualize their potential."

Falak Zaffer Ghatala '03 M.S. '06

B.S. Chemical Biology, M.S. Chemical
Biology
Chief Operating Officer, Muslims Against
Hunger

WASHINGTON, DISTRICT OF COLUMBIA

"The pandemic has taught us that we must revive 'fard al-kifayah' — 'communal obligation'— by raising awareness of our moral

Major John Golden '09
B.E. Mechanical Engineering
Search and Rescue Pilot, Weapons School Instructor with U.S. Air Force,
34th Weapons Squadron
NELLIS AIR FORCE BASE, NEVADA

"My greatest professional accomplishment was the privilege of being deployed director of operations for an expeditionary rescue squadron in the Horn of Africa. The unit received several major awards for its action during a mortal attack and mass casualty event."

PHOTO: AJ JENKINS PHOTOGRAPHY

duty toward societies' most vulnerable, and bridge the gap between our differences and our indifference toward the homeless and hungry."

Kaitlin Gili '20

B.S. Physics
Ph.D. Candidate in
Physics, University
of Oxford; Executive
Director, Encouraging
Women Across All
Borders

OXFORD, UNITED KINGDOM

"The work I have done so far and continue to do is all to create the world I want to see. In this world, women exist in all levels of leadership and quantum computers exist in every industry."

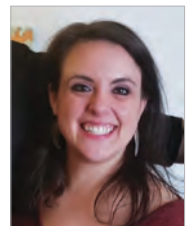


Victoria Goodlof '09

B.A. Philosophy
Coordinating Attorney, Community
Education and Outreach, and Senior
Staff Attorney, New York Legal
Assistance Group (NYLAG)

NEW YORK, NEW YORK

"As a senior attorney at NYLAG, a nonprofit law firm dedicated to serving low-income residents of New York City, I represent survivors of domestic violence in civil and immigration proceedings. My passion is community outreach and educating survivors of domestic violence about their legal rights."





Alicia Gorton '08 M.Eng. '09 Ph.D. '13

B.E. Environmental Engineering, M.Eng. Ocean Engineering, Ph.D. Ocean Engineering

Project Manager and Ocean Engineer, Pacific Northwest National Laboratory
RICHLAND, WASHINGTON

"In 2020, I served as guest editor of a special issue of the Marine Technology Society Journal on offshore renewable energy. Looking forward, I endeavor to continue collaborating with others to find innovative, sustainable solutions to mitigate climate change."

Rita Gurevich '06



B.S. Computer Science
Chief Executive Officer and Founder, Sphere Technology Solutions
HOBOKEN, NEW JERSEY

"My greatest accomplishment has been taking an intense period in history — the

financial crisis of 2008, when the company I worked for went bankrupt — and pivoting to a business idea that I started and grew into a very successful company, which I am continuing to grow!"

Sabrina Henry '09 M.Eng '11



B.E. Chemical Engineering, M.Eng. Engineering Management
Research & Development Manager, Johnson & Johnson
SKILLMAN, NEW JERSEY

"My greatest professional accomplishment to date has been the opportunity to elevate the science behind the very skincare brand that I work on through a national televised commercial. Fortunate to showcase not only science, but also to uplift women and Black excellence now and future-forward."

Giuseppe Incitti '04 M.Eng. '04

B.E. Mechanical Engineering, M.Eng. Systems Engineering
Chief Executive Officer, Sitetracker, Inc.
PALO ALTO, CALIFORNIA

"My biggest achievement is being the CEO of Sitetracker, Inc., a leading enterprise software company whose software is used by leading providers of critical communications infrastructure. Sitetracker has raised \$92 million of venture capital from leading investors and has won numerous industry awards."



Cameryn Hinton '09

B.S. Business & Technology
Associate at Greenbaum, Rowe, Smith & Davis LLP
ISELIN, NEW JERSEY

"I am especially proud of the self-determination I have held onto while pursuing my legal career. I am encouraged to elevate and also broaden my ambitions each time I face and succeed through a challenge. After all, the future is limitless."



Owen Jappen '13, M.Eng. '13

B.E. Chemical Engineering, M.Eng. Chemical Engineering
Director, Chemical Products & Technology, American Chemistry Council
WASHINGTON, DISTRICT OF COLUMBIA



"I'm proud to have bridged linguistic and cultural boundaries in my former role as a process engineer in Germany. Combining this experience with

inspiration from mentors over the years, I hope to continue shaping my career championing the role of scientific industries in society's future."

Seth Kirschner '18

B.S. Business & Technology
Security Engineer, Assistant Vice President, MUFG Securities Americas Inc. (subsidiary of MUFG)
NEW YORK, NEW YORK

"My greatest professional accomplishment has been building and leading a 25-person cyber innovation and tech scouting team while at my previous employer, Deloitte. My greatest ambition for the future is building a social entrepreneurial startup and/or working for a VC that supports social entrepreneurship."



Rob May '13

B.A. Music & Technology
Audio Engineer at NBCUniversal
NEW YORK, NEW YORK

"Through two presidential election cycles, the move to IP technology and the rise of streaming, I'm proudest to be part of an organization I believe in, and to have built a reputation as reliable and adaptable."





Danielle McPhatter '18

B.A. Music & Technology
Researcher, Experiments in
Art and Technology Lab at
Nokia Bell Labs
MURRAY HILL, NEW JERSEY

"Recently, a project that I led for about two years debuted at the Sundance Film Festival. The intersectionality of my education deeply informs my relationship with technology and its ability to augment the arts in emotionally connecting people throughout this work."

Nadira Najib M.Eng. '17 Ph.D. '19

M.Eng. Environmental Engineering, Ph.D. Environmental Engineering
Remediation Manager, Honeywell
MORRIS PLAINS, NEW JERSEY

"As a remediation manager at Honeywell, I manage an international portfolio of environmental sites. In my former role as an environmental manager at Langan, I was named a Civil Engineer Rising Star by Zweig and Young Engineer of the Year by American Society of Civil Engineers North Jersey in 2017."



Dr. Heather Comerici Reyes '08 M.Eng. '08

B.E. Biomedical Engineering, M.Eng. Biomedical Engineering
Physician and Assistant Professor in the Department of Pediatrics, Critical Care at Golisano Children's Hospital and UR Health Lab, University of Rochester
ROCHESTER, NEW YORK



"I am proud of caring for critically ill children and of my research introducing machine learning to alarm management in hospital ICUs. In the future, I am launching new training to introduce medical residents to innovation in digital health."

Michael J. Mitchell '09 M.Eng. '09

B.E. Biomedical Engineering, M.Eng. Materials Science and Engineering
Skirkanich Assistant Professor of Innovation, University of Pennsylvania
PHILADELPHIA, PENNSYLVANIA

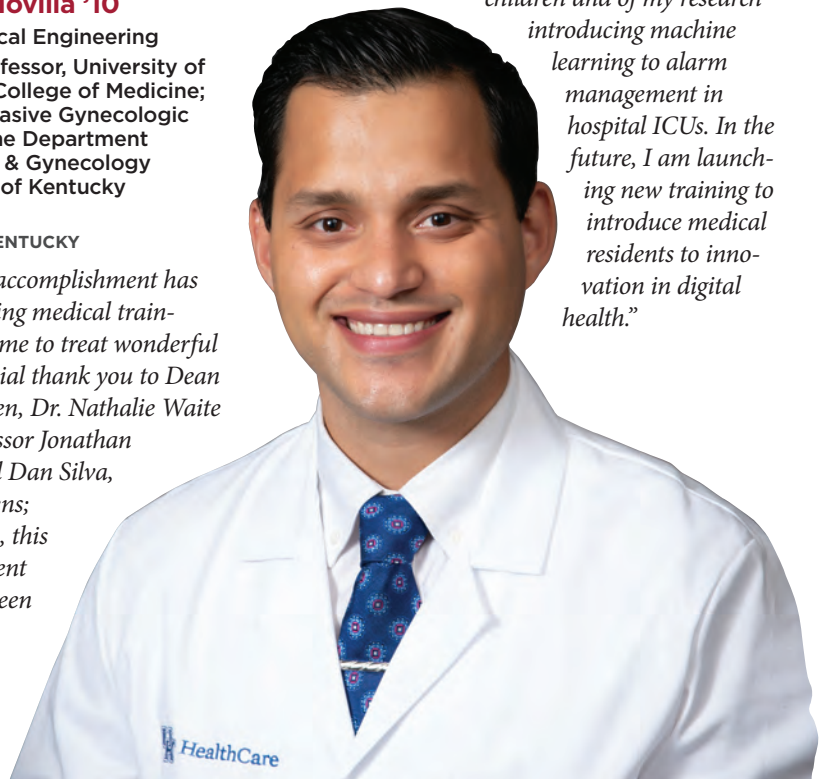


"My greatest accomplishment is engineering new lipid nanoparticle technology for the delivery of mRNA therapeutics, including for cancer immunotherapy and treating genetic diseases before birth. We envision that this nanotechnology will create an entirely new class of therapeutic drugs to treat a range of diseases."

Dr. Peter Movilla '10

B.E. Biomedical Engineering
Assistant Professor, University of Kentucky — College of Medicine; Minimally Invasive Gynecologic Surgeon in the Department of Obstetrics & Gynecology at University of Kentucky HealthCare
LEXINGTON, KENTUCKY

"My greatest accomplishment has been completing medical training, allowing me to treat wonderful patients. Special thank you to Dean Kenneth Nilsen, Dr. Nathalie Waite Brown, Professor Jonathan Wharton and Dan Silva, all from Stevens; without them, this accomplishment would have been impossible."



**Mary Schurgot '06 M.Eng. '08
Ph.D. '12**

B.E. Electrical Engineering, M.Eng.
Electrical Engineering, Ph.D. Electrical
Engineering

Program Manager, Defense Advanced
Research Projects Agency (DARPA)
ARLINGTON, VIRGINIA



"Serving as a program manager at DARPA has been my greatest professional accomplishment to date. In this role, I get to create and manage programs that could lead to the next technological breakthrough."

Frank Sorrentino '08

B.S. Business & Technology
Managing Director, FIG Investment
Banking, Stephens Inc.
NEW YORK, NEW YORK

"Throughout my career I have been part of more than 45 mergers and acquisitions and capital-raising transactions, with an aggregate value of over \$5 billion. I am focused on banking high-growth financial services companies at the intersection of traditional banking and fintech."



Sheila Xuan Sun '06 M.S. '06

B.E. Computer Engineering, M.S. Applied
Mathematics

Founding Partner, Peak Investment
Capital; Board Member, E-Em-Em-A
ACCRA, GREATER ACCRA, GHANA

"Motherhood has transformed me in many ways. What has not changed is what I have always hoped to accomplish in life — to have integrity, authenticity, dependability, courage and, most importantly, kindness. I continue to find the most joy contributing with purpose, to make a positive impact."



James Owen Weatherall Ph.D. '09

Ph.D. Physics and Mathematical Science
Professor of Logic and Philosophy of
Science, University of California, Irvine;
author of three books, most recently *The
Misinformation Age: How False Beliefs
Spread*

IRVINE,
CALIFORNIA

"Writing a book is an enormous effort, so I tend to think of my books as my most significant accomplishments."



It is gratifying, after so much work, that all three have received significant attention and broad press coverage."



Jay Weinberg '14

B.S. Business & Technology
Musician and Artist
NASHVILLE, TENNESSEE

"My greatest professional accomplishment has been sustaining my life through music and art. I've never considered it to be a job; my daily work revolves around my love for creating things. My greatest ambition is to just keep it going."

Derek Straub '11

B.E. Mechanical Engineering
Advanced Manufacturing Group Leader, MIT Lincoln
Laboratory
LEXINGTON, MASSACHUSETTS

"I look forward to ushering in a future where multi-material hybrid manufacturing is ubiquitous, economical and scalable, awarding us a fresh perspective on solutions to our greatest challenges, such as energy and resource management, climate change, space exploration and human health."



A portrait of President Nariman Farvardin, a middle-aged man with short grey hair and glasses, wearing a dark blue suit, white shirt, and striped tie. He is sitting with his hands clasped, wearing a watch on his left wrist. The background is a blurred indoor setting.

LEADING TOWARD THE FUTURE

**A talk with President
Nariman Farvardin**

Stevens President Nariman Farvardin considers the future and what might change — and what won't — at Stevens and across the higher education landscape

Q ■ The COVID-19 pandemic has changed so much about our everyday lives. Of these changes, which do you see as having the greatest impact on the future of higher education?

A: This pandemic is elevating society's respect for science and technology — from vaccine development to technology-enabled continuity of business and much more. This means that there will be a greater demand by students to study science and technology disciplines and by employers for science- and technology-savvy graduates. I also believe that our country will realize that we need to increase our research and development investment in science and technology because doing so will have a direct impact on citizens' lives.

Another important effect of the pandemic has been its disproportionately negative impact on underserved communities. If you look at infection and mortality demographics, the numbers are disproportionately higher among underrepresented minority groups. As a result, I think there will be increased recognition of the wealth and income disparity in our country. These disparities are evident in higher education as well.

COVID-19 also pushed us to realize that there are a lot of things we can do virtually which we may have been reluctant to do before, from virtual doctor visits to socializing online to virtual college visits. Post-pandemic college students will likely not only embrace online and technology-enhanced learning, but they will expect technology to be a core component of their learning experience — whether they are sitting in a traditional classroom or learning completely online.

Q ■ How is Stevens preparing to address these changes?

A: The increased demand for science- and technology-based education and

graduates combined with increased acceptance of online learning portend profound changes for higher education.

Institutions that survive and thrive in the next decade and beyond will be those that are agile and take full advantage of the power of emerging technology to create high-touch, high-quality and personalized learning experiences for their

“This pandemic is elevating society’s respect for science and technology — from vaccine development to technology-enabled continuity of business and much more.”

students. Over the next decade, I predict that we will see some staggering advances in AI-enabled learning tools. Just as the internet changed our lives and our learning, AI will be no less disruptive. And Stevens is building capacity in this area through the Stevens Institute for Artificial Intelligence (SIAI).

Another challenge will be for higher education to address persistent issues of wealth and income disparity, particularly in relation to access to a high-quality education such as Stevens. Talent is distributed uniformly in society, but opportunity is not. Stevens has been working very hard to create opportunities for those students who have the talent, work ethic and passion, but who do not have the financial resources to access a Stevens education. We created a program called ACES, Accessing Careers in Engineering and Science, and it has been very successful in attracting talented, underserved students to Stevens. What's more, these students are thriving — with an average GPA above 3.4 and a 97 percent average two-year retention rate. I hope to be able to greatly expand ACES after the pandemic, because I think the need is going to be even more acute. (*Read more about ACES on page 38.*)

Q ■ What programs or fields of study do you see as future areas of investment for Stevens?

A: We will soon be in the pre-planning stages for our next 10-year strategic plan, but if I were to predict, I would expect that Stevens will increase our footprint in the broad area of biological and life

sciences. I believe there are tremendous opportunities to integrate technology and informatics into biological sciences.

Another field where I think there will be significant opportunity is virtual reality (VR). When it becomes available on a large scale, VR will have a profound impact on many sectors of industry, especially in education and entertainment.

And, of course, the role of AI will also be much more important going forward. I think AI and machine learning will be the basis for the next technological revolution, and Stevens is already placing big bets in this area.

Q ■ With online learning growing in popularity, will there still be a need for brick-and-mortar colleges and universities in the future?

A: Yes. As the pandemic has taught us, we are social human beings and we crave community and interactions that only an in-person experience can fully provide. Many students — particularly undergraduates — will choose a residential college experience not only for what they can learn in the classroom, but also for what they learn and experience outside of class. ❖

WHAT'S NEXT

From quantum tech and electric cars to cancer medicine and electronic music, ten Stevens faculty experts look into the future

What will the world look like in five, ten or twenty years? Will we be hyperlooping from town to town? Commuting to work in driverless taxis? Could the skyscrapers we construct soon actually clean the air for us? Will social media grow or stagnate — and how will the art and music we enjoy evolve? Will students be carrying quantum laptops to class? Will some cancer patients receive a specially designed viral shot as treatment, rather than radiation or chemotherapy?

We asked ten Stevens faculty experts — in fields ranging from artificial intelligence, healthcare and transportation to social sciences and the arts — to look forward. Here's what they see on their radar. — *Paul Karr*

SOCIAL SCIENCES

Lindsey Cormack

Assistant Professor, Social Science
& Political Science



PHOTO: M. COOPER

"Like a lot of fields right now, the social sciences are becoming more 'STEM-ified.' My own work, some of which has long involved data analysis, is no exception. It's great to have the power of numbers and insights that AI, learning models and other new technologies are enabling now.

"But anything you learn is always going to be less powerful without a political, historical or human context. Fortunately, the social sciences are very well-positioned to tell us richer stories as they adopt these technologies. So I think you will actually see the social sciences and the analytic sciences coming together more and more often, but with increased attention paid to the nuances and questions — about bias, for example — that we as social scientists can pose.

"And social media is here to stay. We like to hear what our friends think, we like to tell our own stories and we like the dopamine hits of other people 'liking' what we put up. Social media, like everything else, will change — but it's not likely to recede."

ARTIFICIAL INTELLIGENCE

Jason Corso

Viola Ward Brinning and Elbert Calhoun
Endowed Chair
Professor of Computer Science
Director, Stevens Institute for Artificial Intelligence



PHOTO: MICHIGAN PHOTOGRAPHY

"I think the next 'killer apps' will be in situations where there is ample data, capability for intense personalized impact and the need for human cooperation or interaction to navigate a complex decision landscape. For example, I think personalized healthcare and personalized education will see big revolutions over the next decade. For personalized education, AI has the potential to adapt curricula on the fly to meet each student's need.

"Another branch of 'killer apps' are systems for information distillation. We are overloaded by information on a daily basis. So, I believe there will develop some automated or semi-automated interaction and filtering of all these incoming streams to what we really want to see. This will go far beyond spam filtering, ranking things based on time of day, what you are working on at the moment, and so forth."



CANCER RESEARCH

Ansu Perekatt

Assistant Professor, Chemistry & Chemical Biology
National Cancer Institute Career Transition
Award recipient

“Immunotherapy, where we try to activate our own immune system against cancers, is advancing. There are several promising avenues.

“One is checkpoint blockade. The immune system has a carefully controlled lock-and-key mechanism called a checkpoint, which prevents immune cells from being activated. Cancer cells have ‘keys’ that ‘lock’ immune cells to prevent their activity against the cancer cells. Checkpoint inhibitor drugs can prevent these keys from being engaged or even break these locks, allowing our immune cells to attack cancers more freely. This approach has worked most effectively against metastatic melanomas, but it needs to work effectively for other cancers and for different patients with the same cancer.

“Another growth area will be T-cell therapy, where T-cells are taken from patients, reengineered to express genes against cancer-specific proteins, grown to high numbers and then placed back in the body to attack the cancer cells. A lot of progress is being made here.

“There is also research in developing oncolytic viruses, where you redesign a virus and inject it into tumors to attack the cancer cells.”

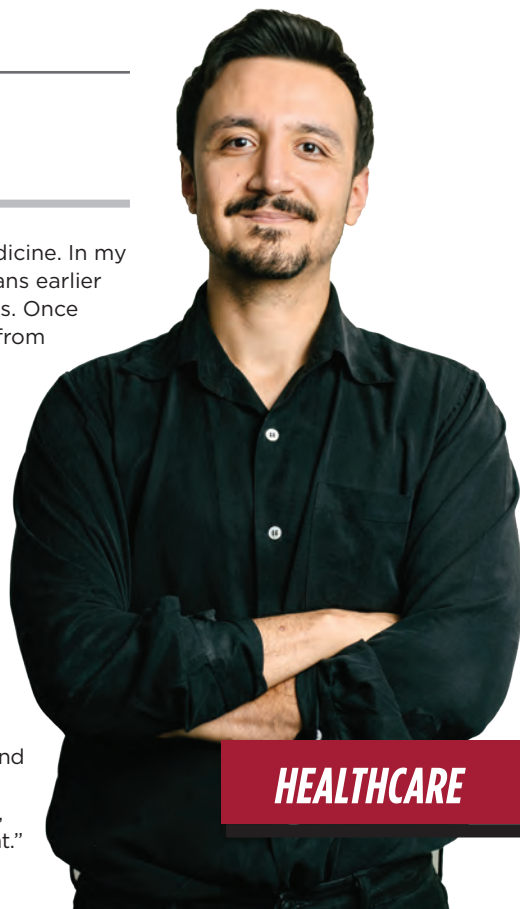
Mehmet Kurt

Assistant Professor, Mechanical Engineering
Director, Center for Neuromechanics

“We will need to strengthen preventive medicine. In my field, neurodegenerative diseases, this means earlier diagnostics. These diseases are silent killers. Once someone has onset, it’s typically downhill from there unless you catch it very early.

“We will see more AI. Can AI and machine learning replace radiologists and physicians? No, you are not going to replace human interpretation, at least not in the short term. But personalized medicine is going to be the future. There is no longer a one-size-fits-all approach.

“Concussion research will also take off. What causes a concussion? It’s not a simple answer; we are each different. The effect of an impact depends on individual brain geometry, health, fitness, body mass and other factors. To understand these biomechanics requires novel imaging techniques, and those will become much more important.”



HEALTHCARE

QUANTUM SCIENCE

Yuping Huang

Gallagher Associate Professor of Physics
Director, Center for Quantum Science & Engineering



“When it comes to quantum laptop computers on your desk, we are just not there yet — not even close. We still have many more breakthroughs to make. But there may be some devices using aspects of this technology soon. I would not be surprised to see communication lines utilizing quantum encryptions within the next five years.

“How far this can go in the future really has to do with engineering — one reason Stevens is so well-positioned. We know how to engineer things very, very well, which gives us a good head start and opportunity in the quantum domain.

“Could quantum computing become all-powerful one day, solving everything, cracking every security measure? In theory, it’s possible. I would not say it is likely, but it’s not impossible. The best way to deal with this possibility is not to be afraid of it: it is to be led by smart people and good people who trust science, and trust one another, to use these technologies wisely.”



BUSINESS & FINANCE

George Calhoun

Director, Quantitative Finance Program
Director, Hanlon Financial Systems Center

“The next wave in personal finance will be based on the emergence of the ‘platform model’ for financial services — the idea that instead of having one place you go for life insurance, another for a credit card and a third for retail banking, a financial services package will be pulled together in a single integrated portal and platform.

“This model relies on fintech — financial technology — to leverage customer data across multiple categories. Analytics are now powerful enough to enable really good predictions, and decisions can be made quickly, even within minutes. Chinese companies have helped pioneer in this trend: companies that were not even in the financial space have become, overnight, the largest money market funds, credit firms and health insurers. This opens the door for nontraditional players here, companies like Apple and Amazon.

“I also think the Federal Reserve will be interesting to watch. Within two weeks of the pandemic beginning to hit, the Fed threw on all the possible monetary stimulus switches, which reassured the markets. This confidence probably prevented a real market and economic disaster. This built a credible case for an interventionist Fed.”

SUSTAINABLE INFRASTRUCTURE

Weina Meng

Assistant Professor, Department of Civil, Environmental & Ocean Engineering
NSF CAREER award recipient

“Right now, 7% of the world’s total carbon dioxide emissions are created by cement manufacturing. That’s a lot. Researchers are attacking this challenge by working on lower-carbon concrete that locks up the CO₂. You can compress hundreds of pounds of carbon into a cubic yard of concrete. So, this looks very promising.

“Bioinspired engineering materials will also become a bigger field. For instance, we study the microstructures of shells, which are strong and lightweight, to try to mimic their design in new materials. It is not easy to do. But we actually have already obtained some good early results.

“Materials that cleanse the air and self-heal are also in development, including here at Stevens by my colleague and husband, Professor Yi Bao. I believe you will see these amazing materials being used in actual construction projects within just five to ten years.”

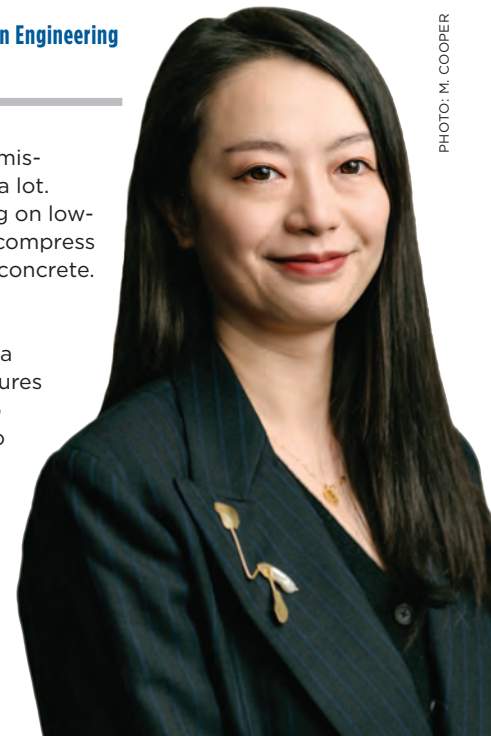


PHOTO: M. COOPER

THE LIFE SCIENCES



Woo Lee

Chair, Department of Chemistry & Chemical Biology
Professor, Chemical Engineering & Materials Science

“The COVID pandemic has been a game changer. Advancements are happening in computational capabilities, using AI

and machine learning to process the data generated by — for example — single-cell sequencing to understand things at more fundamental levels. More and more of this work will be done at the interfaces between AI and chemistry and biology, producing correlation and application in the clinical setting. These advances will enable medicine that is more precise, more personal, for patient treatment and care.

“We are truly building a community of chemistry and biology minds here at Stevens. Second-year students already gain access to some of the new intelligent tools, experimenting with drawing molecules, exploring databases. This builds a computational mindset — and that is precisely where medicine is headed.”



Yeganeh Hayeri
Assistant Professor, Systems & Enterprises

“The transportation sector is the largest contributor to greenhouse gas emission, and what we drive is mostly responsible for the damage. Whether it’s for comfort, convenience, privacy or independence, most people gain higher utility by driving or traveling alone. The plausible remedy is a combo of automation and electrification.

“Does that happen overnight, or over the next decade? No. It is a gradual movement forward. I will not be seeing fully driverless vehicles roaming cities and the country in my lifetime. But with

TRANSPORTATION SYSTEMS

automation, we are reducing crashes, increasing safety and reducing traffic congestion. With electrification, we can reduce our carbon footprint, assuming the source of electricity is renewable.

“Artificial intelligence has been and will continue to be a game changer. Perhaps the first useful (if limited) application is being tested with ‘robotaxis.’ Hyperloop technology is also here, but the infrastructure is not close — and not as easily implemented in urban areas, where it is most needed. So, this will be a harder challenge to surmount.”

THE ARTS

Lainie Fefferman
Assistant Professor, Music & Technology

“There is so much integration happening in the arts. Everyone has access now to so many venues and forms; multimedia has become the norm. Look at the layers of artistry and genre in a Beyoncé show. Concerts and even compositions resemble theatrical productions.

“The way we think of audiences will change. It has already changed during COVID with the ‘virtual proscenium:’ people viewing a concert online, taking part rather than sitting back watching. I think most artists are enjoying this new way of being intimate. We miss the bodies, the rooms, the energy, but we enjoy the live chats. There is a vitality in them that also builds a community.

“And we will see more thoroughly collaborative art and music. The musician Brian Eno once coined the word ‘scenius’ to describe the brilliance of a group of people. People will increasingly share bits of songs, beats, art, ideas on social media to find collaborators in faraway places. More and more art and music in more genres and more communities will be made this way. The laptop has become one of our richest and most beautiful instruments.”



A CAMPAIGN

THE POWER OF STEVENS HAS

In the old days, Stevens freshmen, only men then, assembled in the auditorium of Edwin A. Stevens Hall to start every fall semester. Wearing suits and sitting shoulder to shoulder, they heard a welcome and a warning. A dean or the president praised the proud legacy of the institute and the prosperity of its alumni. They promised the students a rigorous education. So rigorous that many would not be able to handle it.

“Look to your left,” the speaker said. As each man looked and locked eyes, they heard a prompt to repeat turning to their right. “Four years from now,” the warning went, “only one of the men you see will still be here.”

That is a story many alumni have told. It is a part of Stevens lore since the university’s founding in 1870: A broad curriculum rooted in practical application. Preparation for serious industries. Confidence for solving problems. A slog up the hill from Hoboken and sweeping winds hammering “the Point.” Heavy suds at the Chatterbox or Rathskeller. High academic standards, but also high rates of failure.

The students who earned degrees displayed a value that has endured since the founding: *resilience*. Or in other words: *a rise through adversity to the stars*. For 150 years, every generation has adapted and persevered, especially during the pandemic

disruptions of 2020-21. Students today are learning technologies that brilliant minds from the past could not imagine, to compete against talent from across the globe.

Stevens has adapted as well. The high rates of failure are history. The university remains committed to high academic standards, but also to ensuring students have the support they need to succeed. Much of that support has come during *The Power of Stevens* campaign from alumni embracing two more timeless values: *gratitude* and *generosity*.

A community’s campaign

Scholarships are a campaign staple. They enable students to focus on reaching their potential rather than worrying about debt.

Every scholarship has a story. When Phil Crowley ’71 endowed a fund, he remembered how a scholarship helped after losing his father. Mary Anne Cannon ’86 named hers to honor her encouraging parents. Harold Kruger ’52 planned a bequest because he felt welcome at Stevens after serving in wartime. The alumni who cherish the Stevens Technical Enrichment Program endowed the STEP Scholarship. When students face sudden

financial distress, alumni respond with the Impact Assistance Scholarship and the Stevens Rises Relief Fund.

The campaign is broadening the scope of scholarships. The Lawrence T. Babbio ’66 Pinnacle Scholars Program and the A. James Clark Scholars Program attract exceptional students from across the country. With inspiration from Nate Davis ’76, who says Stevens changed his life, talented underserved students receive ACES scholarships for Accessing Careers in Engineering and Science. Scholarships are helping precocious youth explore an immersive pre-college program. Fellowships, like the one Mary Jane and Frank Semcer ’65 started for biomedical engineering, or the one Ben Pramanik M.S. ’73 Ph.D. ’77 named to honor his mentor, Professor Ajay Bose, enable talented graduates to emerge working with established faculty.

Alumni are also making campaign gifts to bolster programs. Wanting to empower women, Lisa Mascolo ’82 funded renovations to the Lore-El Center for Women’s Leadership, while Dianne ’90 and Jim Szipszky ’89 sponsor the inspiring Leadership conference. Scott Swensen ’74, Harry Farrell ’93 M.Eng. ’96 and others



FOR THE AGES

SERVED CLASSIC STEVENS VALUES

underwrite the budding traders of the Student Managed Investment Fund. Devoted former athletes and fans make annual gifts to cheer the Ducks competing on courts, mats and fields. Gifts for faculty excellence, such the Richard R. Roscitt Chair in Leadership and the Steven Shulman '62 Endowed Chair for Business Leadership, connect students to dedicated mentors.

The campaign is also creating a more vibrant campus. Students are exploring inside new classrooms and labs named for Frank Battista '54, Peggy and John Schepisi '65, Gina Addeo '86 and others. The University Center Complex will become the heart of campus because of champions like Bob Fiocco '58, Maggi and Bob Salfi '64, Cindy Chin '05 M.S. '05 and Josh Levine '05 M.S. '05 and others from a list growing as long as the residence halls are tall.

Look to your future

The campaign will conclude on June 30, 2021, on track for the \$200 million goal. Every dollar of every gift has added up to have a profound impact on student success, with new endowed funds powering the next 150 years and beyond.

Graduation rates are at record highs, approaching 90 percent. Some 95 percent of students secure high-paying jobs or enter graduate school within six months after commencement. The admissions office is receiving more than 10,000 applications a year, because high school students and their families see all that a Stevens degree makes possible.

When speaking to first-year students, now and in the future, Stevens presidents will still be able to say that the journey is rigorous. That must always be so. They can praise the proud legacy of the institute and the prosperity of its alumni. But they can

also encourage, nurture, motivate, inspire.

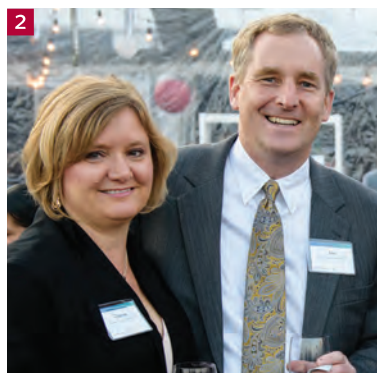
"Look to your left," the president could say to a group more diverse than their predecessors and too numerous to fit the old auditorium. "Look to your right. These are the people you will see at commencement.

You will have lifelong friendships with them. You will cheer each other as you succeed in your careers. And you will always have a home at Stevens, to celebrate your achievements and your alma mater. *Per aspera ad astra.*" ♦ — Alan Skontra

1 A gift from Frank Battista '54 helped support a cyber security lab in the Gateway Academic Center.

2 Dianne '90 and Jim Szipszky '89 sponsor Stevens' annual LeadHERship conference. **3** Ben Pramanik M.S. '73 Ph.D. '77 honored his mentor, Professor Ajay Bose Hon. M.Eng. '63, by starting a fellowship in his name.

Opposite page: Mary Anne Cannon '86 (seen here speaking at the 2018 Scholarship Luncheon) endowed a scholarship in honor of her parents.



alumni**news**



READY FOR CLASS

The year 2021 marks the 50th anniversary of the admission of undergraduate women to Stevens. Can you identify this student from the 1980s and the tools in her bag? Email editor@alumni.stevens.edu.

PHOTO: ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY, STEVENS INSTITUTE OF TECHNOLOGY

SAA President's Letter

To the Past 150, For the Next 150

Dear Alumni,

Moments of reflection, pride and celebration can happen during the most challenging of times. It is with great optimism for the future that this commemorative issue is published at a moment when the world accelerates the end to the global pandemic, as we reflect on our past 150 years of Stevens history and look boldly into the future. As a preeminent educational institution with technology at its core, it is fitting that the vast majority of our 150th year has required the leveraging of new tools to bring personalized digital connectivity to our community. I've been inspired by the ingenuity and entrepreneurialism that brings world-class speakers, alumni thought leaders, and university administration into our homes and offices regularly. In a sense, this type of powering through adversity is the story of Stevens.

Reading about our groundbreaking alumni, and impressive academic and entrepreneurial advancements over 15 decades, the idea of striving for and reaching new frontiers has never been more relevant. There have been so many achievements since our founding, but I find it particularly fitting that the 50th anniversary of undergraduate women at Stevens is being commemorated this year. This special year for Stevens alumnae is just one way that we've transformed as a community and seek to recognize those who led this transformation on behalf of our alma mater.

The Stevens Alumni Association (SAA) has evolved and changed much since that first meeting in July 1876 with a membership of 25 alumni. The first chairman, William Hewitt Class of 1874, would not be able to recognize the growing campus imprint and would be in awe of the rising University Center Complex, made possible through the support of generous alumni. Virtual programming, where we can connect through technologies that Stevens alumni helped to develop, would have been a thing of science fiction. What has not changed since 1876 is our Association's core mission to "cultivate such social relations as shall tend to foster among its members a sentiment of regard for one another and of attachment to their Alma Mater, and to promote in every way the interests of the Institute."

Our ability to respond to the needs of our alumni in modern times is reflected in the new SAA Constitution and Bylaws that took effect on July 1, 2018 — 142 years to the day after that founding moment. Like those before us, we are working to find new ways to bring our association into modern times while looking ahead of the curve to new opportunities. COVID-19



restrictions have quickened our resolve to be ever-more connected. We envision continued hybrid events (where in-person and virtual gatherings seamlessly take place simultaneously), unbounded by our geography and ready to serve more of our global community. One example is our 2021 Red and Gray Days — an extended hybrid alumni celebration that commences with virtual Alumni Weekend on June 3-5, 2021, and continues through the summer and early fall with virtual programming and with future in-person gatherings (when it is safe to do so). There is tremendous work already underway to

not only expand the traditional ways we engage

alumni but also grow in key areas of professional development and lifelong learning, providing alumni the sense of community and benefit to staying connected for a lifetime. The next frontier for the SAA is ambitious, and we are ready to meet both the opportunities and unforeseen challenges along our continuing path.

This edition of *The Stevens Indicator* is something for us to hold on to as a reminder of our roots and our traditions. The next chapter of Stevens' history cannot have its greatest realization without our alumni community. We want to hear from you to know what role you would like to play in keeping our alma mater — and our Association! — on its upward trajectory. I look forward to the tomorrow when each member of our global alumni community — some 50,000 alumni strong — is building for future generations of proud Stevens alumni.

Per aspera ad astra,

A handwritten signature in black ink that reads "Victoria Velasco".

Victoria Velasco '04

President

Stevens Alumni Association

saapresident@alumni.stevens.edu

Don't forget to cast your vote in the Stevens Alumni Association 2021 Board of Directors Election by June 5, 2021. Please visit connect.stevens.edu/saavote to learn more or to request a paper ballot in the event you do not have the ability to vote online. For more information, call 201.216.5163.

Class Logs

Stevens' Oldest Living Alumnus Passes at 107

'36 He lived through two World Wars and many other cataclysmic conflicts, the Great Depression, the Cold War, global pandemics, 9/11.

William J. Axt also witnessed wonders and triumphs over more than a century: the civil rights movement and the ongoing fight for equality; the U.S. space program; the information age.

This true Stevens engineer, who contributed to the development of the historic *Nautilus* submarine and served his community as a volunteer well into his 90s, passed away on Nov. 1, 2020, his beloved family at his side. Mr. Axt was 107 years old and Stevens' oldest living alumnus.

Mr. Axt, a native of Newark, New Jersey, lived most of his life in Newton Centre, Needham, and Peabody, Massachusetts. He was known as "Red" during his Stevens days, when he was a member of Phi Sigma Kappa fraternity and the soccer team.

After graduating from Stevens, he went on to work with most of the large engineering firms in the Boston area — Charles Main, Stone & Webster, and also Jackson & Moreland in Cincinnati, Ohio — consulting on jet engines and systems. He also worked on the air conditioning system at Symphony Hall in Boston, sitting backstage with Arthur Fiedler. He loved classical music.

Retiring in the early 1980s, Mr. Axt launched a second career volunteering at Needham Glover Hospital (now BI Lahey), where he spent more than 25 years. When he moved to Peabody to be closer to his daughter and her family, he had logged over 10,000 hours.

In 2009, the Richard Melick Foundation honored him for his service to his community.

Mr. Axt's hobbies included woodworking and carving, and he had a lifelong love of trains. He built dollhouses that benefitted St. Joseph

Catholic Church and the Charles River Center in Needham, which he and his wife supported for more than 50 years. He also built a fabulous model train layout in his basement, and when he traveled, it was almost always by train.

Mr. Axt is survived by his two daughters, Barbara (Axt) McTighe and Caroline R. Axt; a grandson; two great-grandsons; and 10 nieces and nephews. His wife, Emily, predeceased him.

Virtual Alumni Weekend June 3-5, 2021

'40 Edward F. Egan Hon. D.Eng. '85
Edward F. Egan Hon. D.Eng. '85, a World War II veteran, company co-founder and president, world traveler to six continents and Stevens stalwart, died on July 15, 2020, at the age of 101. He and his wife, Doris, had recently celebrated their 74th wedding anniversary.

The Egons were living in Brunswick, Maine, after spending most of their lives in New Jersey.

Mr. Egan, salutatorian of the Stevens Class of 1940 and a former member of the Stevens Board of Trustees, lived a life of adventure and enjoyed much professional success with Frank W. Egan & Company, the company he co-founded in 1945 with his father Frank and his brother Larry '43, in the attic of Frank Egan's house in Bound Brook, New Jersey. The company would grow over the decades to expand to two plants and 500 employees. But Mr. Egan's family would say that his five children and grandchildren were his guiding light and crowning achievement.

"He instilled in his five children his own qualities of curiosity, fairness, integrity, generosity and adventure," they said.

Mr. Egan wanted to enlist in the Army Air Corps a month before Pearl Harbor, so he asked Stevens President Harvey Davis for a letter of recommendation. Mr. Davis wrote that "while I feel that [Ed] might do the country even more good by staying in industry, I am much impressed



Edward Egan '40, the longtime class secretary and Stevens stalwart, passed away last July at the age of 101. A tribute appears in the 1940 log.

by the sober seriousness with which he seems to be making his decision. I recommend him without qualification."

Ed served in the Army Air Corps in the South Pacific until VJ day in August 1945. He endured an extraordinary adventure after the B-25 he was riding in crash landed on the Philippines Island of Catanduanes. Ed and others suffered mostly minor injuries, but all were safely pulled out of the plane by the islanders, who were happy to see the American airmen, whom they insisted on honoring with a feast and a parade. The B-25 crew later sailed with the Filipinos in their twin-hull outrigger to reach the nearest American Army base.

Mr. Egan was discharged from the Army as a captain on Dec. 25, 1945, and married Doris at St. Patrick's Cathedral in Manhattan less than a month later.

In 1945, Ed, his brother Larry and his father Frank started Frank W. Egan & Company and offered only limited services: consulting, and the design of paper coating machinery. In 1947, the company received its first order for a complete machine, which they designed in-house, and then contracted out the machining and fabrication.

By the tenth year, just before Ed took over as president, there were 105 employees. To the new company, Ed contributed both his engineering talents — he received five patents for various innovations in winding, cutting and slitting materials in the company's web machinery — and his management skills as company president. Under his leadership, the company diversified into a variety of product lines, such as machinery for coating, converting, extrusion, thermoforming and molding plastics, and signed licensing and sales agreements with firms around the world, in Italy, Germany, England, France, Argentina and Japan.

Julie Boera, wife of Dick Boera '46, passed away last year. He remembers her in his class log.



William J. Axt '36, Stevens' oldest living alumnus, passed away on Nov. 1, 2020, at age 107. His Link yearbook photo appears here; read more about his inspiring life in the '36 log.

Stevens recognized Mr. Egan's many contributions — to business, industry and to Stevens — with an honorary doctorate in 1985.

Mr. Egan learned to fly and had an insatiable love of travel. He was deeply committed to volunteer service. In addition to the Stevens Board of Trustees, he was a member of the Stevens Alumni Association's Executive Committee and the longtime Class of '40 class secretary. For many years, he served on the boards of Somerset Medical Center and the Somerset Savings and Loan Association.

Mr. Egan was also a musician and sang in his church choir. In addition to the guitar, he played the piano — at home and in community musicals, often accompanied by his songbird wife. He and Doris loved music, and they loved dancing. They danced on their first blind date, and they were still dancing at his 100th birthday, nearly eighty years later.

Till the end of his days, he would often say, "I married a wonderful woman, and I am a happy old man."

Mr. Egan is survived by his wife and their five children: Michael, Nancy, Kathleen, Patricia and Frank; 11 grandchildren; and five great-grandchildren.

Virtual Alumni Weekend June 3-5, 2021

'46 Jan. 8, 2021 — Coming to your local bookstore soon: Stevens authors' pick **Dick Easterlin** (of Pasadena, California), *An Economist's Lessons on Happiness*. Once called the "dismal science," economics now offers prescriptions for improving people's happiness. In this book, Richard Easterlin, the "father of happiness economics," draws on a half-century of his own research and that conducted by fellow economists and psychologists to answer in plain language questions like: Can happiness be measured? Will more money make me happier? What about finding a partner? Getting married? Having a baby? More exercise? Does religion help? Who is happier — women or men, young or old, rich or poor? How does happiness change as we go through different stages of life? Public policy is also in the mix: Can the government increase people's happiness? Should the government increase their happiness? Which countries are the happiest and why? Does a country need to be rich to be happy? Does economic growth improve the human lot? Some of the answers are surprising (no, more

money won't do the trick; neither will economic growth; babies are a mixed blessing!), but they are all based on reason and well-vetted evidence from the fields of economics and psychology. In closing, Easterlin traces the genesis of the ongoing "happiness revolution" and considers its implications for people's lives down the road.

That was the good news. Lacking the receipt of any space fillers begged from our less-responsive (but still lovable) '46-ers, I'm resorting to report the loss of my bride of 68-plus years.

Julie Louise Boera, 92, of Allen Harbor, South Burlington, Vermont, passed on peacefully at the UVM Medical Center on December 20, 2020. Born on Staten Island, New York, on September 22, 1928, to Joseph D. and Marion (Smith) Baeszler, Julie received a bachelor's degree in education from Notre Dame College and a master's degree from Hunter College — both in New York — and briefly taught deaf and hard-of-hearing children in a New York City public school. In 1952, she married A. Richard Boera (who survives her), a World War II naval officer and, later, college administrator. They raised six children before moving to Vermont in 1970 when husband Dick accepted a post as dean of business affairs (CFO) at Lyndon State College. They added another child to the clan the following year, the only native Vermonter in the family. They spent many happy years in Lyndonville, moving to Essex in 2010 to be closer to some of their children and their families, and more recently (in 2018), to Harbor Village in South Burlington.

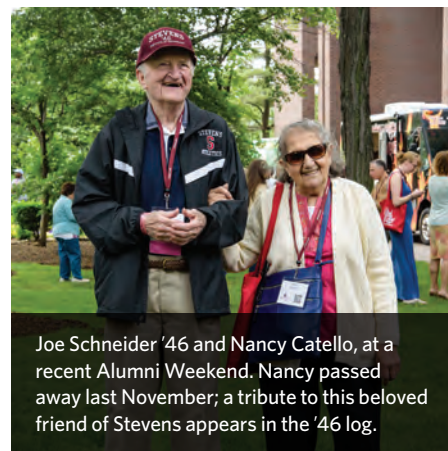
After retirement, they traveled together through Europe, South America and all 50 states, with Dick venturing further afield to 83 countries and all seven continents. They have four children living in the Greater Burlington area: Patricia, a lieutenant colonel (retired) in the Air Force; Christine (husband Jonathan Kingston), Susan (husband Dave Sobczak) and David (wife Amy); Peter (wife Kiva) live in the Northeast Kingdom's town of Wheelock in Vermont; plus Air Force Major Gen. (retired) Michael (wife Carrie) of St. George, Utah, and Air Force Col. (retired) Donna (husband Shannon O'Harren) in Vienna, Virginia. With their 12 grandchildren, their great-grandchild roster now numbers six.

Julie served as a charter member and secretary of the Lyndon Historical Society and president of the Lyndon Women's Club. Plagued by many debilitating medical ailments in recent years, Julie still always enjoyed watching and hearing about various professional, athlet-

ic, theatrical, civic, military and educational accomplishments of the grandchildren and was their biggest fan. She also loved socializing with friends and her beloved Highgate Springs neighbors (where the family vacationed every summer from an early age) and corresponding with her network of many friends close by or spread around the country. She was a legendary writer of thank-you notes and a living embodiment of the philosophy of share-care-love. Following a stroke about five years ago, it crushed her spirit when she was obliged to surrender her driver's license, but she was delighted that her widely recognized VMONTER license plate could remain in the family.

A devout Catholic, her faith sustained her in response to her painful health trials and challenges. In lieu of flowers, contributions in her memory will be welcomed by St. Anne's Shrine, 92 St. Anne's Road, P.O. Box 280, Isle La Motte, VT 05463, Julie's favorite charity. St. Anne's Shrine is a spiritual and historical attraction in Vermont's scenic Champlain Islands. Due to the current pandemic, no funeral services or visitations were held. A private memorial mass will be conducted at the shrine at a later date, as will interment of her ashes at the Moravian Cemetery on Staten Island.

This just in — under the wire: "I attribute my success in business partially to my Stevens education — ME, M.S. I am still living at home in Chappaqua, New York, with my wife of 30 years. I wish all Stevens alumni, especially the other remaining '46-ers, another year and a better 2021. **David B. Jaroff**" — **A. Richard Boera, Allen Harbor, 90 Allen Road, Apt. 16, South Burlington, Vermont 05403; (802) 495-5815; arbjlb@comcast.net**





Al LeBreton '51, a World War II Army Air Corps veteran and Westinghouse engineer, passed away last July.

Editor's Note: The Stevens Indicator staff — and the university community — were so sorry to hear of the passing of Mrs. Boera and of Nancy Catello, the sister-in-law of **Joe Schneider** and a beloved member of the Stevens family. Joe and Nancy have been strong supporters of Stevens, its students and alumni for decades. They faithfully attended many Stevens events over the years, from Alumni Weekend to Old Guard Luncheons, cultural and sports events to the Scholarship Luncheon, and have many dear friends at Joe's alma mater. Nancy's faithful presence and her dedication to Joe — and her grace and kindness — made her truly special.

Nancy, who passed away in November, was a longtime resident of West New York before moving to Guttenberg, New Jersey. Before her retirement, she worked for Joe's embroidery company, A. Joseph Schneider Embroidery, as a mender. She was a lifelong parishioner of St. Joseph's of Palisades RC Church in West New York and is predeceased by her three brothers and four sisters. Joe survives her, along with extended family and many friends.

Both Mr. Schneider and Mr. Boera and their families have our deepest sympathy.

'48 January 8, 2021 — Our Class of 1948 has dwindled down to the following — or maybe even less: **Bob Sterling**; **Janette Crowder**, JCrowder14@cox.net; **Dan Heflin**, (757) 373-6120, danheflin@heflin-williams.com; **Jimmy Nicholson**; **Don King**, d121king@aol.com; **Pat Phillips**; **Jack Pizeck**,

(228) 497-0786, jap01@cableone.net; and me, **Lou Shook**.

I have not received a response from anyone, but I keep trying!

So, the only news available is about me, which doesn't seem to change much — just continues to be terrific! Sally and I have slowed down a bit and have limited travel. We live in Sally's house in Virginia Beach, Virginia, (757) 428-1952 — and would be delighted to receive visitors. We've sold our home in Naples, Florida. I own a cabin in Red Hook, New York, which I look forward to each summer.

Sally and I are looking forward to a two/three-week stay on the isle of Bermuda.

I spend my time writing books: seven published, two in the works and some 20/30 to follow. And Sally is always busy and keeping me out of trouble; playing bridge with friends; maintaining the serenity we enjoy with friends, family, children, grandchildren, great-grandchildren, etc.

My best to all of you at Stevens. I am really impressed with the progress and standing achieved by Stevens under the guidance and direction of President Nariman Farvardin and the Stevens administration! I certainly am grateful for the guidance and leadership that President Farvardin has provided. — **Louis L. Shook, 220 Bay Colony Drive, Virginia Beach, Virginia 23451; (919) 619-3955; loushook@cox.net**

Virtual Alumni Weekend June 3-5, 2021

'50 Dec. 30, 2020 — Is this the end? Not a word from anyone. Please email a few lines or call to let our classmates know you are still kicking.

This is our first winter in Tennessee in 33 years after selling our condo last spring. We even had a one-inch white Christmas. Life at the condo is at a standstill because of the virus, so we are just missing the warm weather. We are still walking some with pain but only go out for doctor and dentist visits. We are traveling the world via TV. We order our groceries by computer and get them loaded in our van. I am the microwave chef. Our two children live in town and help us out.

I attended the virtual Alumni Day last spring. Stevens is rapidly growing. Contact the Alumni Office if you want the links. So, have a Happy New Year and write or call. — **Walter Carow, 790 Emory Valley Road, Apt 803, Oak Ridge, TN 37830; (865) 805-6134; wcarow@yahoo.com**

Virtual Alumni Weekend June 3-5, 2021

'51 **Albert F. LeBreton**, a Westinghouse engineer, passed away on July 28, 2020, at age 95.

After high school, Al volunteered for what was then the U.S. Army Air Corps. With his GI benefits, supplemented by night work in the locomotive roundhouse of the New York Central Railroad, he became the first in his family to attend college.

After Stevens, he joined the Westinghouse Electric Corporation Steam Generation Division, initially in Pittsburgh and later in Lester, Pennsylvania, and Orlando, Florida. Mr. LeBreton primarily designed rotors, blades and bearings for a variety of steam turbines, securing a number of patents for Westinghouse (later Siemens). He eventually rose into management and was kept on as a consultant following his 1989 retirement.

Residents of Longwood, Florida, for over 35 years, he and his wife June were founding members in 1984 of Holy Cross Lutheran Church of Lake Mary, Florida. Mr. LeBreton contributed his woodworking skills to make altar furniture, installing the building's locks and the entry crucifix.

Mr. LeBreton was predeceased by his wife. He is survived by an older sister, Jean LeBreton; his son Jonathan; his daughter-in-law; and his grandson.

In lieu of flowers, the family asks that those so inclined support the Class of 1951 scholarship fund at Stevens Institute of Technology, which Mr. LeBreton quietly but steadfastly supported all his life. — **The Stevens Indicator; alumni-log@stevens.edu**

'52 January 2021 — As Stevens marks its 150th anniversary during the 2020-2021 school year — and as COVID-19 keeps us home, often away from people and places that we love — our alumni may be feeling even more nostalgic for Castle Point. Stevens and Hoboken bring back memories not only of my student days but also of my parents, Anita and **George Wolf, Class of 1925**.

A number of us can proudly call ourselves Stevens legacy families. Here are some reflections on my parents and their ties to Stevens many years ago that endure today, through me.

My parents dated while my father attended Stevens from 1921 to 1925. They regularly attended Alumni Day; I remember that his class often

SAA Update

In 2020, the Stevens Alumni Association Board of Directors bestowed the Stevens Alumni Award to all past presidents of the Stevens Alumni Association. This fitting recognition during what was to be the 100th Alumni Weekend commemorates the passion and sacrifice of these individuals over many decades, and their service in bringing us to this important moment of our history. These alumni are listed here and stand together as representatives of all alumni since the university's founding in 1870.

had two tables set up on Castle Point, just in front of Castle Stevens.

My father also attended many Stevens basketball games for decades, from 1925 through 1948. And my mother was a member of the Mother's Club of Chi Phi fraternity, when I was a fraternity member from 1950 to 1952.

Both of my parents were loyal to Stevens.

—Robert F. Wolf, 3740 Broadview Road, West Lafayette, IN 47906; (765) 497-3853; [The Stevens Indicator, \(201\) 216-5161; alumni-log@stevens.edu](mailto:Stevens Indicator, (201) 216-5161; alumni-log@stevens.edu)

Editor's Note: Bob Wolf recalls his Stevens experiences, shares fun memories and even sings the "Stevens Fight Song," which he knows by heart, in an oral history interview with Leah Loscutt of Stevens' S.C. Williams Library. To hear stories from Bob and other alumni and faculty, visit "Voices from Castle Point" at library.stevens.edu/voices.

'53 December 2020— Charlie Schnabolk reports that after working on three engineering textbooks for the past ten years, they are about to be published. The works include a 600-page textbook for Routledge, to be published in June, and a 560-page book for Wiley and a 130-page book for Palgrave MacMillan, both due for publication this fall. — The Stevens Indicator; alumni-log@stevens.edu

'54 January 8, 2021 — Hi. It's been quite a year, this past 2020. As for any traveling, Peggy and I have spent most of it going to food stores, doctor visits and pharmacies. Probably most of you have done similar traveling. The search for toilet paper and other related products has eased up. We all must persevere until this awful pandemic has been conquered. We bought a travel trailer last March and have not used it to date. Hopefully, in 2021 we will be able to do some camping again. I know our class has dwindled in size, so I would appreciate it if you could send me an email as to how you are doing, even if it's just to say you're alive and still kicking.

Until then, keep safe and well, and make sure you sign up for the COVID vaccine when it becomes available in your area. — George Hromnak, 45 Glenridge Blvd., Homosassa, Florida 34446; (352) 382-7445; ghromnak@brighthouse.com

William Hewitt, Class of 1874.....	1876-1877, 1894-1895	John H. Muller, Class of 1921.....	1942-1943
Henry W. Post, Class of 1874.....	1877-1878	Carl A. Schlegel, Class of 1910.....	1943-1944
William E. Geyer, Class of 1877.....	1878-1879	Kimber De Hart, Class of 1926.....	1944-1945
James E. Denton, Class of 1875.....	1879-1880	R.M. Adams, Class of 1921.....	1945-1946
Alfred P. Trautwein, Class of 1876.....	1880-1881, 1890-1891	Hermann K. Intemann '30.....	1946-1947
Alfred R. Wolff, Class of 1876.....	1881-1882, 1887-1888	Warren E. Atkins, Class of 1921.....	1947-1948
Aldolph Sorge, Class of 1875.....	1882-1883	Charles F. Beckwith, Class of 1909.....	1948-1949
Roland S. Kirsheedt, Class of 1880.....	1883-1884	James T. Costigan '33.....	1949-1950
William Kent, Class of 1876.....	1884-1885	Edwin J. Schwanhauser, Class of 1915.....	1950-1951
Alexander C. Humphreys, Class of 1881.....	1885-1886	John F. Kidde, Class of 1928.....	1951-1952
George M. Bond, Class of 1880.....	1886-1887	Clement M. Bonnell, Class of 1919.....	1952-1953
Lewis H. Nash, Class of 1877.....	1888-1889	Graham H. Brewer, Class of 1921.....	1953-1954
Gustavus C. Henning, Class of 1876.....	1889-1890	George J. Nicastro, Class of 1925.....	1954-1955
Edward B. Wall, Class of 1876.....	1891-1892	Wendel W. Clinedinst, Class of 1921.....	1955-1956
Cornelius J. Field, Class of 1886.....	1892-1893	Frederick B. Llewellyn, Class of 1922.....	1956-1957
Harvy Van Atta, Class of 1881.....	1893-1894	William J. Roth '34.....	1957-1958
Harry D. Parsons, Class of 1884.....	1895-1896	Albert H. Morgan, Class of 1917.....	1958-1959
Edward P. Roberts, Class of 1877.....	1896-1897	William G. Nordling, Class of 1921.....	1959-1960
John W. Lieb, Class of 1880.....	1897-1898	Edward T. O'Connor '31.....	1960-1961
Robert M. Dixon, Class of 1881.....	1898-1899	Harry S. Mann '39.....	1961-1962
Hosea Webster, Class of 1882.....	1899-1900	Gordon G. Bowen '30.....	1962-1963
William L. Lyall, Class of 1884.....	1900-1901	Sherman Loud, Class of 1921.....	1963-1964
Carter H. Page, Class of 1887.....	1901-1902	Patrick J. Rochford '42.....	1964-1965
William S. Ackerman, Class of 1891.....	1902-1903	Kenneth A. Southworth '31.....	1965-1966
William C. Post, Class of 1886.....	1903-1904	Edward A. Ostocka '35.....	1966-1967
Robert M. Anderson, Class of 1887.....	1904-1905	G.C. Jelliffe '30.....	1967-1968
William H. Bristol, Class of 1884.....	1905-1906	Arthur R. Schaefer '41.....	1968-1969
Arthur G. Glasgow, Class of 1885.....	1906-1907	George F. Habach '29.....	1969-1970
Henry Torrance, Class of 1890.....	1907-1908	James A. Spady '55.....	1970-1971
H.S. Morton, Class of 1897.....	1908-1909	Francis J. Cashin '46.....	1971-1972
Henry M. Brinckerhoff, Class of 1890.....	1909-1910	Robert C. Sturken '40.....	1972-1974
Walter Kidde, Class of 1897.....	1910-1911	Albertus E. Schmidlin '39.....	1974-1975
George Dinkle, Class of 1888.....	1911-1912	Lewis S. Goodfriend '44.....	1975-1976
Ernest H. Peabody, Class of 1890.....	1912-1913	Richard J. Dell '64.....	1976-1977
John H. Cuntz, Class of 1887.....	1913-1914	George J. Koechlein '38.....	1977-1978
J.A. Dixon, Class of 1891.....	1914-1915	Warren G. Gerleit '45.....	1978-1979
William E. Strong, Class of 1892.....	1915-1916	Robert W. Bosse '50.....	1979-1980
Frederick A. Muschenheim, Class of 1891.....	1916-1917	Paul H. Flynn '39.....	1980-1981
Frank E. Law, Class of 1892.....	1917-1918	Philip B. Kimball '62.....	1981-1982
Nicholas S. Hill, Class of 1892.....	1918-1919	William J. Neill '47.....	1982-1983
Robert Boettger, Class of 1898.....	1919-1920	Harry W. Bodemann '49.....	1983-1984
Eugene E. Hinkle, Class of 1890.....	1920-1921	Merrill G. Thor '68.....	1984-1985
Harold E. Griswold, Class of 1893.....	1921-1922	John P. Podolsky '39.....	1985-1986
B.F. Hart, Class of 1887.....	1922-1923	Michael A. Scott '70.....	1986-1987
J.E. Sague, Class of 1883.....	1924-1925	Kenneth J. DeGraw '57.....	1987-1988
John H. Peper, Class of 1909.....	1924-1925	Robert J. Fiocco '58.....	1988-1989, 1995-1996
Richard A. Wolff, Class of 1914.....	1925-1926	James G. Benedetto '59.....	1989-1990
Henry T. Gerdes, Class of 1902.....	1926-1927	Gerald T. Crispin '69.....	1990-1991
Roger C. Aldrich, Class of 1899.....	1927-1928	Maureen P. Weatherall '78.....	1991-1992
W.J. Boucher, Class of 1896.....	1928-1929	Joel T. Wagoner '80.....	1992-1993
Herbert V. Scott, Class of 1918.....	1929-1930	Philip P. Crowley '71.....	1993-1995
Thomas W. Kirkman, Class of 1908.....	1930-1931	Gene Eckel '51.....	1996-1997
David C. Johnson, Class of 1906.....	1931-1932	Donald E. Daume '67.....	1997-1999
Murray E. Whiteleaf, Class of 1900.....	1932-1933	Joseph T. Weber '64.....	1999-2001
William E. Paulson, Class of 1904.....	1933-1934	Richard S. Magee '63.....	2001-2003
John G. Bainbridge, Class of 1911.....	1934-1935	Marty P. Valerio '68.....	2003-2005
Frederick A. Lydecker, Class of 1907.....	1935-1936	Enrique L. Blanco '72.....	2005-2007
Frederick M. Gibson, Class of 1901.....	1936-1937	Edward Eichhorn '69.....	2007-2009
William C. Morris, Class of 1896.....	1937-1938	Mary A. Duddy '80.....	2009-2011
John A. Malone, Class of 1912.....	1938-1939	Mark I. LaRosa '93.....	2011-2021
Willis H. Taylor, Class of 1916.....	1939-1940	Thomas J. Moschello '63.....	2012-2014
Oscar C. Roosen, Class of 1912.....	1940-1941	Joseph G. DiPompeo '98.....	2014-2017
Earl L. Griffith, Class of 1923.....	1941-1942	Victoria Velasco '04.....	2017-2022



1 Carol and Richard Harries '58 attend the topping-off ceremony last summer for Stevens' new University Center Complex. They made an historic gift for the project, to fund the Harries Residential Tower.

2 For news from Marie and Bill Pepper '58, see the '58 log.

Virtual Alumni Weekend June 3-5, 2021

'55

Jan. 29, 2021 — The only "quick news" that I could send concerns myself and reports

actions that many of my successful Ph.D.s and post-docs at Cal Berkeley took to fund a Richard S. Muller Scholarship Endowment Fund in electrical engineering and computer science at Berkeley. The fund, for which support at present exceeds \$1,000,000, disburses only funds from endowment income and therefore continues indefinitely. The Muller Fund was publicly celebrated at a meeting arranged by the Berkeley Dean of Engineering Professor Tsu-Jae King. At the meeting (held on December 8, 2020), the Muller grad students and post-docs were invited to connect through Zoom. The meeting featured conversations about events focused on the eventful years in electronics since the 1960s when I began teaching and research in that dynamic area. Roughly 50 participants took part, coming from locations spanning the globe. Highlighting the celebration were conversations in "chat rooms" arranged to focus on specific decades.

Biggest news for Carol and me is a scheduled COVID-19 vaccination on February 20. — **Richard Muller, 1519 Oxford St., Apt. H, Berkeley, California 94709-1542; (510) 559-0866; muller@berkeley.edu**

Editor's Note: The Stevens Indicator staff was saddened to learn of the passing of Patricia Boyle Neu, the wife of Stevens emeritus professor Emil Neu, last August. Emil recalls that his future wife first visited campus in 1960, before their marriage in 1962, to attend a Newman Club Communion Breakfast. She would go on to be a faithful member of the Stevens community, and a warm and gracious presence on campus, for close to 60 years. "When I was simultaneously managing the ABET accreditation for both electrical engineering and computer science, she assisted me in dealing with the two ABET accreditors," Emil recalled. "When I was the longtime chairman of the Stevens Old Guard, she solved everything, from personal issues down to seating arrangements."

Here is a brief tribute to this remarkable woman.

Patricia Boyle Neu of Maplewood, New Jersey, passed away peacefully on August 1, 2020, with her husband, Emil, at her side. She was 87 years old; August 11 would have been their 58th wedding anniversary.

She earned an undergraduate degree in general elementary and speech correction and a master's degree in speech and language pathology, both from Kean University.

Patricia taught elementary school in East Orange and then speech in Clifton, New Jersey. She wrote a proposal to the Millburn/Short Hills, New Jersey, school system in 1960 to start a speech program, which led to her dedicating 32 years to the students of that district.

She was a parishioner of Our Lady of Sorrows R.C. Church in South Orange, New Jersey, for 54 years.

During her retirement Patricia enjoyed traveling, teacher luncheons, the Jersey shore, practicing Tai Chi and caring for her grandchildren. She made everyone feel special with her warm, friendly personality.

Patricia is survived by her husband, Emil; their children, David (Anne), Edward and Carolyn (Eric) Sabo M.S. '92; and four grandchildren, Amalia, Matthew, Ryan and Laura Anne.

'58 Guest log by Bob Fiocco
January 8, 2021 — Greet-

ings '58 classmates: some of you may know that I've offered to give our class secretary, Mike Bonner, a break from the duties he has performed so well for the past many years. Early in 2020, Mike had an extended bout in the hospital which was a major challenge (non-COVID related) for him and wife Pat. He's back home now but still working on recuperation. I felt (and he happily agreed) that he could use some help with the class log. Consider me a guest secretary. I do have some class items to share.

It's no big news that COVID-19 has significantly changed the world, including each and every one of us and our families. We realize much more fully how socializing and communicating with family and friends is an intrinsic part of our human nature. I want to move on from the negative impacts of the pandemic, so let's just appreciate any positive aspects we can.

First of all, the good news is that the Harries Residential Tower of the new University Center Complex has progressed beautifully. With a lot of invaluable consulting input from Rich, construction was on time and on cost! Rich and wife Carol's magnanimous gift to Stevens (one of the largest ever, as announced during our 60th reunion about three years ago) is a landmark point (literally and figuratively) in the upward trajectory of the "Old Stone Mill."

It is a major point of pride for our class, as well, of course, as for the whole Stevens community. I enjoyed attending the impressive "topping-off" ceremony with Rich and Carol last August when the 20th floor was completed, and a fir tree was hoisted to the rooftop. What an incredible view of the Hudson River, the New York City skyline, Statue of Liberty and Hoboken waterfront from the site on that sunny morning! And we all can look forward to seeing and touring the landmark, perhaps on our 65th anniversary celebration at Stevens in 2023! Thank you again, Rich and Carol!

Another update regarding the Harries '58

Residential Tower: I have become a “ground-breaker,” in homage to classmate Rich, with the sponsorship of the R.J. Fiocco ‘58 Residence Lounge which overlooks the beautiful Hudson River scene. I don’t know if many of you know that Rich and I go far back as classmates to kindergarten at P.S. #15 school in Jersey City. We also carpooled (Rich had the car and drove, of course) each of our four years at Stevens.

Also, during this past COVID summer, I was busy downsizing from my home in Basking Ridge, New Jersey, to one in Fellowship Senior Living Village, which is all of four minutes away. It happened to be a good time to get the house ready to sell and to move on. My new four-room “cottage” is a great base for me, and I very much enjoy the facilities and activities. Also, in the initial stages of the COVID pandemic, I started doing the Zoom meeting thing, hosting weekly Mass and prayer service for my 90-member Christian community. It continues to work out great for the community and for me as well. All in all, keeping very active and having fun in these “golden years.”

I had a great visit with longtime friends Rose Marie and Bill Pepper in Williamsburg, Virginia, last October. They are enjoying their new digs at “Verena at the Reserve” to which they downsized about two years ago. They are both doing fine and made my trip there especially fun. They recently shared a “tasty” picture from their dining facility during COVID Thanksgiving. Bill also celebrated a big day this past November; he has completed 90 revolutions around the sun. God bless! Many more!

I also met with class President Nick Mestanas this summer for an outdoor lunch at Café Saporì, a very good local Italian restaurant that is Nick and Jasmine’s favorite, especially during the COVID quarantine. They are both doing well in retirement and actively enjoying their home in Pottersville, New Jersey.

Please get in touch with Mike and myself so we can prepare an interesting log for the next *Indicator*. Call or email. If you email, a short paragraph or two (or more) on how you are doing and/or what you are up to these days would be great. Also, you are welcome to share any reflections on Stevens or life in general.

We both send our best wishes and hope to hear from you in 2021! Peace to all! — **Michael F. Bonner**, 329 Sylvania Ave., Avon by the Sea, NJ 07717-1242; mfbonner@optonline.net; **Bob Fiocco**, 5120 Fellowship Road, Basking Ridge, NJ 07920; bobfioc8@gmail.com

’59 January 30, 2021 — This coronavirus pandemic has certainly changed our behavior patterns.

Hibernating in our burrows like our animal friends, creeping out with our masks to get necessities, having to learn all about Zoom and FaceTime in order to see our families, friends and “GoTo” meetings. Even though all of us are surely on the priority lists for the vaccinations, as of this writing, Lynn and I are still waiting (after two appointments that were canceled and rescheduled).

I am still working and have recently developed a new skill — preparing “virtual workshops” for the Transportation & Logistics Council because we had to cancel our annual educational conferences and live seminar programs. Also miss our weekly rehearsals for the Huntington Choral Society and the concerts each spring and fall.

Leo Collins shared the sad news that Arnie Bahnsen, his good friend and fellow Delt and a loyal supporter of Stevens, passed away last October. We extend our deepest sympathy to Arnie’s family and friends.

After the last *Indicator*, I received a nice letter from Frank Comprelli which I will include in its entirety.

“Hi, George, it’s been a while since I’ve sent you a note, so there’s no time like the present. I enjoy your columns, so I thought I might pass on some info (some of which I may have sent previously, but I don’t remember).

“In June ‘59, I came to California (drove cross-country with Dick Clement) and spent a year at Stanford, obtaining a M.S. in metallurgy.

“Work history: Worked for GE in San Jose, California, on atomic power fuels and materials for ten years. Then spent 35-plus years with Bechtel, working on energy-related projects. Spent most of that time in San Francisco with brief assignments elsewhere, including two years in Saudi Arabia and one year commuting weekly to the Nevada Nuclear Test Site — both enriching and interesting experiences. After ‘retiring’ from Bechtel, I was ‘re-engaged’ to prepare documentation to train project managers new to Bechtel, and I did this for several years before finally cutting all ties.

“Social: Belong to a number of bridge groups (but I do not claim any level of skill beyond passable), a men’s club at church and a retired men’s luncheon group. I don’t know of any other Stevens people in this area, but I try to keep in email touch with Gene Anguil (in Whitefish Bay, Wisconsin) and Pete Zavatarro (in Las Vegas, Nevada).

“Family: Wife, Nancy, three daughters, one son-in-law, and two grandchildren (one in sixth grade and one in first year of high school).

“Locale: After Stanford, I lived in San Jose for about 12 years. Then, to ease my commute to the Bechtel office in San Francisco, I moved to Moraga, California, where I have lived for approximately 48 years. Time sure flies! Doing my best to survive COVID, Frank Comprelli.”

Since most of you are cooped up and can’t play much golf or tennis, or go traveling on vacations, this would be a great opportunity to exercise your literary skills and let your classmates know how you are doing! Stay safe and keep wearing those masks! — **George C. Pezold**, 120 Main St., Huntington, NY 11743; (631) 271-8817; george.pezold@transportlaw.com

Virtual Alumni Weekend June 3-5, 2021

’60 January 29, 2021 — We are continuing to work with the Class of 1961 to jointly celebrate our 60th reunions in June. *Editor’s Note: At press time, the decision had been announced that Alumni Weekend will be all virtual, with the hope of holding in-person reunions later in the year, if conditions improve. Please stay tuned.*

Frank Carr checked in from the Florida Gulf Coast after one of the wildest hurricane seasons on record. “Hurricane Eta was the craziest storm I’ve ever seen in terms of its track. I don’t usually panic when they announce a hurricane, but I follow the track and predictions. So, I got a little antsy with Eta, hired some help to move all our furniture off the lanai pool area and into the house. Then it went away. So, wife asked to get the living room cleaned out so we could walk; so out to the pool the furniture returned. Then this thing did its second 2 U-turn, came back, and hit us but only as a tropical storm. So, we got rain and wind and more rain, and more rain. Neighbor measured over four inches on just the first day. But we had no damage. Leaks, of course, but no damage. Cheers, Frank.” Frank is the 11th member of the class to join the Legacy Society.

In 1980, we went where no class had ever gone before and established the Class of 1960 Endowed Scholarship Fund, thanks to a leadership gift from Joe Marino. Since then, more than 60 classes have followed our example and hundreds of Stevens students have benefited from your generosity. Joe has stepped up again and made a leadership gift to the fund to commemo-

rate our 60th Reunion. Thanks, Joe.

Thus far, our classmates seem to be navigating the pandemic in good health, sheltering in place and lining up for vaccinations. **John Dalton** reports that he and **Bernie Blum** got in several rounds of golf last summer. He also has been collaborating with another golf partner, **Ed Eichhorn**, '69, publishing a twice monthly newsletter (*The Three Minute Read*) for the Healing American Healthcare Coalition that is designed to provide busy physicians and clinicians with a two-page summary of key issues affecting them. Contact John if you would like to be added to his mailing list. Meanwhile, let's all look forward to the day when we can return to a new normal.

Take a few minutes to share your pandemic experiences with Class Secretary Don Merino for the next class log. — **Donald N. Merino**; dnmerino2@gmail.com

Virtual Alumni Weekend June 3-5, 2021

'61 November 21, 2020 — Our class will be celebrating our 60th anniversary reunion this spring!

At press time, the decision had been announced that Alumni Weekend will be all virtual, with the hope of holding in-person reunions later in the year, if conditions improve. Please stay tuned. We hope to celebrate with our many friends from the Class of '60. — **Jay Wartell**, letrow@yahoo.com; **Fred Dietrich**, dietrichfh530@gmail.com

'62 January 8, 2021 — It's early January, and we're all pretty much confined to home. In New Hampshire, where we have plenty of snow, at least we've enjoyed some snowshoeing in the woods around the house. This is also a good time both to reflect on our brief time at Stevens, oh so many years ago, and a good time to consider contributing to Stevens.

Coincidentally, I just received a note from **John Lupi**, our class fund captain, who said, "As you receive this edition of *The Indicator*, Stevens is well into fiscal year 2021. I thank the 33 class members who contributed last year and ask that you continue to support our great school. There are approximately 66 other classmates who did not contribute in fiscal year 2020, so I respectfully ask you to make a contribution of any amount this year. The year 2020 was a disaster for many of us and its impact on Stevens was also severe, but through all of this I believe in the eight years

under the extraordinary leadership of President Farvardin, Stevens has become stronger, the university's national rating has increased and we are graduating great engineers and scientists! Please consider making a contribution on the Stevens website today. Thank you all in advance, John."

Frank Derato sent a note reflecting on what some Class of '62ers have done to occupy themselves during the virus lockdown. Frank had quite a unique story which he relays as follows, "I sold my beer can collection. Right after college, I began to recognize the artistic creativity of beer can design and I started to save them — after I had emptied them, of course. A Miller can, a Budweiser can and others like Schlitz, Pabst, Rheingold and that Theta Xi favorite, Horlacher (79 cents a six-pack). At one point, in a rented house, I had a wall of nothing but beer cans. But after Pat and I were married, the cans went to the attic. Pat thought that our living room needed more conventional décor! Thirty-two European trips added many more cans to the collection, until this year, when I decided to clean out the attic. I hauled the cans down into the living room where it took weeks to sort them into categories and box them. I found a dealer of vintage beer cans in Michigan and sent him some photos, including a photo of my prize collectable — a Playmate can. When this beer came out in the late '60s, Hugh Hefner sued for infringement on his name, thereupon the company stopped producing the beer and the cans became rare, very rare. The dealer thought it would bring him a thousand dollars! This can was his inducement to buy my collection. He drove out from Michigan and bought my entire 2,700-can collection. What impressed him was the excellent condition of the cans. That's because I drank them all. I learned early on that beer cans are one of the more enjoyable items to collect. Cheers, Frank."

And this news from **Alex Peck**'s shop, "Hi Phil, unfortunately, my mentor and longtime friend passed away last summer. Fifteen years ago, we each built a 3/4-inch stainless steel welding table rescued from World War II production. His table will soon be coming to my shop for a new home. He taught me welding for ten semesters at night and two fulltime days after I retired. Stay tuned for my next big project, Alex."

And finally, this from **Alex McKenzie**, who writes, "We are sure it has been a strange and stressful year for all of you, and our year was no exception. This was the year we planned to go on safari in Kenya and Tanzania in August. That has been postponed for a year. And then the lockdown happened!

"In spite of it all, we have managed to keep busy. I have an accumulation of photos, postcards and slides that we never looked at once we entered the age of digital photography, and put all our recent images on a computer-driven display. I used the first few months of the lockdown to digitize the rest of the collection — close to 10,000 more images. Once they are digitized, they need to be touched up for color balance, lighting and sharpness before they are ready to display. That process has only been finished for about half, so I'm certainly not bored yet! I have also been working on writing a bit of the history of Highland Deeside in Scotland and my McKenzie ancestors who lived there before emigrating to the new world. I finished one of three planned chapters — this one about the general history. Should anyone like to see a copy, please let me know. Here's wishing all a 2021 full of peace and happiness, an end to hatred and violence, and the opportunity for every member of the human family to live in safety from war, disease and despair! Alex" — **Philip B. Kimball**; pbkim25@gmail.com



Hal Daume '63, second from left, and the Creekside Singers perform some folk-rock tunes in North Carolina. Learn more from Hal in the '63 log.

'63 January 8, 2021 — Hi guys, I'm writing this just after New Year's Day with the hopes that the vaccines are distributed rapidly and that you and you families are healthy. Below are some notes with minor paraphrasing by me to reduce the length of the entry.

The first response to the request for input came from **Glenn Halsey**, and it was a disappointing one. He wrote to mention that his grandson, who's now a second-year honor student-athlete on scholarship at Texas A&M, was waitlisted by Stevens.

Bill Knowles' message was much more upbeat (as I'd expect from him) and he wrote, "I am on this side of the great divide and am doing well, but memory is dropping fast. I'm good for my first 40 years but am laughing through my next 20 years if I do not get raptured quickly.

"My roommate, **Van Buren Winston**, Class of 1965, the third Black student to graduate from Stevens, passed away recently from his bout with cancer. (*Editor's Note: Read Mr. Winston's obituary in the 1965 log.*) As for me I'm doing well. My wife is still pretty and has the energy now as she has had since she was 35 years old. She is now four score and ten. I still have the energy that I had when I was 77. I made two one-way drives across the country in my 70s. I sleep as much as I want to, have a daughter, two sons and seven grandsons and, fortunately, nobody inherited my bone disease. Four grandsons are in San Jose and three grandsons are in North Carolina."

From north of the border, **Mike Delevante** writes, "Bug may not be a good word to use at this time. I keep recalling the relatively carefree days at Stevens when nothing bothered us, except maybe the absence of female students, a blessing in a way since there was nothing to distract us from our appointed task — graduation. There was no serious virus, and I cannot remember us being too distracted about the Cuban missile crisis, the Vietnam War or even Watergate.

"But when I look back, there were troubling times, but nothing compared to what we are going through now. Maybe it is our age and our concern for our kids, grandkids and the unbelievable death toll from COVID-19. Since I am in Canada, I will not comment on the political situation. Suffice to say that I hope this will be over while I am 'young' enough to get back to the old normal, though it was never that normal.

"My distraction is that I'm still working, from

home, on designing distilleries for various people who seem to have the money (maybe from rich investors) and want to indulge in the fantasy of making booze. They do not always see the value in employing a consultant especially if they have attended a course in distillation at some 'college.' I have had some who have used my services from the inception. This has given me the opportunity to work with clients in Massachusetts, Connecticut, Texas and a few in the West Indies, India, Mexico, England and El Salvador. Unfortunately, I have no intention of sitting on a plane, especially since they do not allow you to open a window in flight. Stay safe, think positive and test negative."

Bill Stenger, after 30 years, actually did complete the move from Texas to Florida.

Then **Hal Daume** added, "Linda and I moved to Southport, North Carolina, two years ago and loved our small community (just 300 homes) from day one! Then COVID hit, and all the community activities stopped on a dime. I was bored out of my skull and on my way to the pits of depression when my wonderful wife suggested, 'You sing 'Barbershop' with a group in a nearby town, and there are three neighbors who also sing in that same group, plus we have a really good rhythm guitarist down the street. Have you considered pulling those guys together and just start singing whatever you like?'

"So, I reached out. It was mid-July and the other guys were as bored, especially with not singing anymore, and jumped on the idea instantly. Now known as 'The Creekside Singers' (our community is named Arbor Creek), we've not only been gathering to sing at least once a week, we've been *performing* (we only perform outdoors)! We quickly evolved into a folk-rock group, with a little doo-wop thrown in, and we're having a blast!

"Our wives love it, because we're out of the house for a few hours every week and we come home smiling. Best 'therapy' we could have found, and our neighbors enjoy coming out and listening (and occasionally signing along) when we perform. Life is pretty good!"

I think Carol and I are doing OK with only the typical "aging body" complaints. Like all of you, we've been frustrated by the virus and the greatly restricted human contact. One result of that has been that we've done a lot more hiking.

Thank you for your entries. They make my job easier, and I look forward to both hearing from you and seeing the next *Indicator*. In the meantime, think of what we can all do to help reduce

our individual input to global warming. — **Nev Sachs; nevsachseng@gmail.com**

'64 January 8, 2021 — Dear Class of '64: I heard from a number of classmates who responded to my email regarding updates for our class log. Please keep those cards and letters coming.

John Powers writes: "We have a small group of fraternity brothers who have been getting together for decades. Our 'TX gang' consists of five brothers from Theta Xi — classes from 1962-65: **Frank Derato**, **Ray Kent** (both 1962), myself and **Art Bailly** (1964) and **Ken Madonia** (1965). We have been getting together not only at Stevens Alumni Weekend, but also separately — sometimes several times a year. We either take turns hosting a get-together at our homes or, more recently, at some interesting Pennsylvania venue — e.g., Philadelphia, Johnstown, Lancaster, etc. Our wives usually participate, and we have a great time at restaurants, pubs and on day trips. Sometimes, we also have a 'boys get-together.' Over the years, we have a lot of great memories that have been captured with extensive photo albums on DVDs. This year, of course, was different. Because of the pandemic, for the first time in many years, we could not have a get-together even at Alumni Weekend. So, as a sign of the times, we had a group Zoom call. It was good to see and talk to everyone, but it's just not the same. Fortunately, everyone has been well and escaped the coronavirus — so far. We're looking forward to Alumni Weekend next year — hopefully — as well as some other opportunity for the 'TX gang' to get together. I feel very fortunate to have a group of close friends who have known each other for about 60 years! Very special."

By the way, **Joe Weber**, class VP, suggests that your get-togethers be foursomes at the annual Stevens Golf Outing, which has traditionally been held at the Arcola Country Club in Paramus, New Jersey. About 30% of the fee is a deductible and matchable donation while enjoying your usual camaraderie. A great way to help the Stevens cause.

Editor's Note: No firm date for the next golf outing had been set at press time, but please watch for upcoming announcements.

I also heard from **Rich Cundari**, my compatriot on the Stevens baseball team. He writes: "I ground out a bunch of tech duty in my career. Ran eastern ops for IBM, then moved to VP jobs at AT&T and ADP. Later was CEO of Greenwich

Technologies in New York. Spent my whole career in greater New York with a short stint in Washington, D.C. running the federal sector for AT&T Computer Systems. I do venture capital stuff now, raising money for small companies and investing some of my own in some cases. I also serve on the board of advisors of the Stevens Venture Center. Big fun but slowed now with COVID. Best vacay was a biking trip in France's Loire Valley. Try it! I reside now in Sea Girt, New Jersey. I also had an apartment in Greenwich Village, but got rid of it as a result of COVID. No New York City for me. I am a total coronavirus chicken. Every few years, some Chi Psis meet on Alumni Day. **Reithner, Braccalante, Seitz, Segala and Ewalt**. They are as handsome as ever. The Lodge is still a dump. I also keep up with **Len Miller** who is working, nobly, with Tech, on environmental carbon recapture ideas he has. Four kids and ten grandkids. Looked in the mirror lately, at 78, and said "When the hell did this mess happen?"

The following classmates have had their email returned to me. If anyone knows the whereabouts of **Carlo Alfaro** (taught at Mercer County Community College), **John Blondek**,

Mirko Fatovic (last known in France), **William Feldman**, **William Hulbig**, **Vincent Jelm** (Arizona) or **Donald Nelson**, please let me or the Alumni Office know.

As a final note: **Dave Schnitzer** writes that his wife passed away last July. He and Marilyn were married for 52 years, having been introduced by classmate and fraternity brother **Dr. Paul Robinson**. They were married when Dave was stationed at the Pentagon as a data processing officer to the Army Chief of Staff. After military service, Dave worked for Exxon, NBC and American Express in New York and Arizona. They moved back to New Jersey where Dave was a real estate director for Anthem Blue Cross Blue Shield, surviving the 9/11 attack on their headquarters in the World Trade Center. After retiring, he received his residential real estate license. Now living in Boca Raton, Florida, he attends the Stevens alumni groups in Boca Raton and San Francisco.

As I mentioned above, your class officers want to remind you to remember Stevens in your donation plans during the coming year. It has been a tough year for everyone, and Stevens has been no exception. Every bit helps. Let's make

this a banner year. Stay safe, stay healthy and finally welcome to 2021. — **Harley G. Graime**; hgraime@att.net

Virtual Alumni Weekend June 3-5, 2021

'65 January 4, 2021 — I guess I can wish you all a Happy New Year as it is January 4, and you will not receive *The Indicator* until sometime in the spring.

Steve Cochran did almost all the work on our reunion "book of bios," from encouraging submissions, editing them with classmates, formatting the text, getting all the submitted photos into one format and gathering the whole book into one file to send to the publisher, ready for printing. But you know all of this if you have read Steve's account of "the quest" in our bio book. If you have not done so already, I highly recommend it. I read it several times and enjoyed it each time.

Looking ahead to Alumni Weekend in June 2021. At press time, the decision had been announced that Alumni Weekend will be all virtual, with the hope of holding in-person reunions later



Plan a gift, have an impact now!

During the **Stevens 150 Legacy Challenge**, your planned gift can unlock matching funds for the **University Center Complex**. Plus, donors of planned gifts today become eligible to join the **Stevens Legacy Society**.

The sesquicentennial is an ideal time to join the society and celebrate Edwin and Martha Stevens' landmark planned gift that established the university 150 years ago. To participate in the challenge and become a lifetime member of the **Stevens Legacy Society**, simply document your planned gift to Stevens.

The **Stevens 150 Legacy Challenge** began on September 1, 2020, with \$195,000 in matching funds available on a first-come basis. As of March 1, 2021, a pool of \$149,000 remains available. The challenge will end on June 30, 2021, or when the funds are depleted, whichever comes first.

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in the year, if conditions improve.

The COVID-19 pandemic has certainly had an impact. Please stay tuned.

Between now and when you read this *Indicator* log, we will have contacted you in more detail. Until then, keep safe and enjoy life as much as possible.

William Knowles '63 sent along this sad note about the passing of his friend and our classmate, **Van Buren Winston, Jr.** "Van Buren Winston, Class of 1965, the third Black to graduate from Stevens Institute of Technology, passed away about two weeks before Christmas. He was a dean's list student, defenseman on the lacrosse team and head or chief cadet of our Air Force ROTC. We both were brothers in Omega Psi Phi fraternity, a national Black fraternity founded in 1911 at Howard University." Van Buren's obituary appears at the end of this log.

Here is a list of classmates in different categories that you might insert into our reunion book:

Those included In the Book of Bios: 112

John Abom, Karl Auerbach, Bob Albrecht, Dave Barabas, Don Baxter, Al Bentley, Bill Berg, Ed Bertele, Jon Beveridge, Bob Billman, Ed Boyde, Bob Braine, Jeff Brown, Bob Brown, Mel Buchwald, Bob Caruth, Steve Cochran, Tom Cooper, Chap Cory, Dennis Curtin, Gary Cymrot, Nick D'Agosto, Eugene Danylyshyn, Bob Dauer, Luis de Larrauri, Bob De Steffano, Bruce Dechert, George Fichter, Bob Fillinich, George Fitzpatrick, Pete Franconeri, Lloyd Freese, Bob Fuge, Jim Gallo, Carl Gianatti, Tom Gibson, Marty Gornstein, Al Gottlieb, Harvey Gould, George Greene, Jim Griffin, John Harpootlian, Mike Harris, John Higgins, Dick Hulbert, Jim Hurley, Rick Hutton, Phil Jenkins, Ron Kolemba, Dave Kameron, Jin Kiel, George King, Gus Koven, Arne Larsen, Frank Lastrina, Alberto Lorenzoni, Ken Madonia, Bill Mason, Emil Mastik, Wes McCollough, Joe McDowell, Robert Mitro, Jim Moleta, Dave Munson, Don Nelson, Rich O'Connor, Rich O'Leary, John O'Neil, Jim Ostrander, John Passerini, Paul Peacock, Dan Peck, Pat Perrotti, Bill Pinkasavage, Jerry Quinn, Steve Rae, Harold Rappoport, Rudy Rehquate, Greg Reinhardt, Bob Reithner, Vasilis Riginos, Ernie Rockwood, Ray Rossi, Tom Russell, Ed Ryan, John Schepisi, Joe Scott, Walt Scrivens, Frank Semcer, Herb Shauger, Jeff Shindelman, Nick Sileo, Thor Skoland, Jerry Stocker, Jim Stryker, John Thielke, Bill Thogersen, Stan Tomalesky, Ken Tometrini, Bill Tootill, Charlie Tosch, Tom Trainor, Hank Troy, Fred Unfried, John Van Remoortel, Rick Vanderslice, Dieter



Cheryl and Phil Brower '66, at left, with their family. Catch up with Phil in the '66 log.

Walter, John Waypa, Rick Youngstrom, Dave Yigdal, Tom Young, Les Zenack

- Those who submitted bios but have since died: 2, Robert O'Leary, Luis Larrauri. Those who died after publication: 1, Van Winston

- Those spoken to or exchanged emails within 2019 and/or 2020 but have since gone silent: 13
Cosmo Avellis, Stan Arzulowitz, Joe Berres, Jack Coogan, Walter Denmead, Dennis Deveney, Jim Foran, Lou Kasprzak, Stan Kowalewski, Jeff Kroll, Dave Miller, Jim Petke, Bruce Southern

- Those contacted but who never responded: 30
Gerry Agresti, Jim Agresti, Larry Bee, Ed Bosson, Charlie Castelli, Rich Curtis, Fred Daffner, Ron Eng, Joe Fabula, Jeff Fenton, Adrian Ferraris, Jules Friedman, Harold Frisch, Frank Gaizo, Dave Hammond, John Mardo, Xavier Minervini, Austin Montecoulo, Rich Niceforo, Charlie Osiecki, Bob Rawley, Al Roosov, Phil Rubin, Ken Satoyoshi, Art Smith, Roger Stanton, Mike Tirabassi, Sam Tropello, Dave Vogel, Lee Whitmore

- Presumed deceased: 3,
Bill Schiel, Stu Spaven, John Spence
- Those who submitted bios after publication: 3,
Dave Heidenreich, James McCoy, Dennis Clayton

- Never contacted as requested and stated in the Stevens database: 1 Jim Billowith
Accounting for 163 classmates — **George Greene; (781) 631-1323; gwggreene43@hotmail.com**

Van Buren Winston, Jr.

Van Buren Winston, Jr., an entrepreneur, IT executive and veteran of the Korean and Vietnam wars, died on November 10, 2020, surrounded by his loving family. He was 77.

After graduation from Stevens, he served as

a captain in the U.S. Air Force in the continental United States and in Vietnam and Korea. He completed the management program for executives at the University of Pittsburgh's Graduate School of Business.

Mr. Winston's professional career included more than 20 years as an executive and senior leader in information technology, and he retired from Fashion Institute of Technology after serving ten years as a senior member of the executive staff of the office of the chief information officer.

Prior to FIT, he was a CIO resource person, providing management and strategic consulting support for leading higher education institutional clients of Collegis (now SunGard Higher Education Managed Services). Before joining Collegis, he served as a regional account manager with Systems & Computer Technology Corp. (now SunGard Higher Education Solutions), and as a global account executive with MicroAge Integration Group.

Mr. Winston co-founded Corporate Consulting Group Inc. after serving as the chief operating officer at Accurate Information Systems Inc.

Prior to entering the technology industry, he spent over ten years managing enterprise-level relationships with Citibank in New York City.

He was a member of Omega Psi Phi fraternity.

Mr. Winston is survived by his wife, Diane Winston; his daughter, April Willis; his son, Damien Hooper-Campbell; three siblings, Sylvia Winston Green, Shirley Satterwhite and Michael Winston; a granddaughter; and a host of relatives and friends.

Don't see your class log listed? Send an update to alumni-log@stevens.edu or call 201-216-5161.

'66

January 8, 2021 — Dear '66 Classmates, I hope that you are all surviving this pandemic that we've been experiencing since last March.

From my perspective, 2020 was pretty much a lost and lonely year, although there were some bright spots. For this edition, I have tried to reach out; however, there has been a limited response from our classmates.

I know that many of you may not be fond of Facebook, and the political comments are disheartening, at best. Our "Stevens Institute Class of '66" Facebook page is not like that, and I would encourage more of you to check it out and participate. It provides you an opportunity to easily share positive stories, plus interesting informa-



Carolyn and Gerry Osborne '66 with their granddaughter, Sydney. Her dad is David Osborne '92.

tion about yourself, your families and Stevens.

Richard Seeley has been posting excellent professional nature photos, such as capturing the exceptional detail of a blue bird in flight.

This Christmas, Carolyn and I recorded a musical holiday greeting that we shared, using some new technology that allowed us to separately and simultaneously perform a guitar solo, vocal solos and a duet, synchronized to appear as one ensemble. We're not going to be invited to perform in Nashville, but we had fun in the process and hope that you might enjoy it.

On a sad note, one of our classmates, **Don Pearson**, passed away on the evening of January 10, 2021, in Naperville, Illinois. Don spent his entire career with Babcock & Wilcox, until retiring

as a senior manager from their Chicago offices. I was privileged to know him, be his friend, his roommate, a brother in Theta Xi and a fellow employee of Babcock & Wilcox. The following is his obituary:

"Donald B. Pearson, age 76 of Naperville, passed away on January 10, 2021. He was the devoted husband of Cindy for 34 years, dearest brother of Phillip (Joyce) Pearson, Karen (Lee) Williams, brother-in-law to Robert, Kelli, Glen (Bridget), Dawn (Joel), loving uncle to Paul (Karyn) Andrea (Marc), Lee Jr., Christopher, Carly, Kalee, Alec (Cassie), Zach, Luke, Jake, Ryan, and friend and colleague to many. Donald retired from Babcock & Wilcox after 42 ½ years of service. A celebration of life will be held in the spring. In lieu of flowers donation would be appreciated at www.love4animals.org"

I recently spoke with **George Henry** and discovered that we have some similar interests in retirement. George is now the ex-president of Gideons International in Ohio, since his retirement. He has stepped down but continues to work with them as they try to expand evangelism efforts. My own evangelism activities are centered around Kairos Prison Ministries, although our prison visits and regular meetings have been suspended, due to COVID-19.

Our oldest granddaughter, Sydney, spent about a month with us over the holidays, which also included helping her celebrate her 17th birthday. My son (her father) is **David Osborne '92**. Sydney is a junior in high school and an excellent student; however, she is more interested in the arts than science or engineering. Perhaps one of the next group of grandchildren will have more of an interest in engineering, in about ten years?

With respect to plans for our upcoming 55th Reunion, I'm passing along comments that I just received from **Phil Brower**, who is serving as our chairman for this event.

"Our 55th Reunion is approaching, yet the COVID-19 pandemic may still cloud implementation of a normal Alumni Day event in June. Class officers have been looking at possibilities while the Alumni Office has considered various options, including rescheduling to a later date in the year. All remains to be decided further by Stevens in the early spring as effects of the vaccine on the virus are revealed.

"As we began our plans last fall, the Class of 1965 called to suggest combining their missed reunion with ours this year. Ideas included opening our activities to several other classes, such as

'63 and '64."

Phil has also mentioned that he will be contacting other past reunion committee members for ideas and support on plans for us. Classmate interest will be solicited regarding special events, perhaps combined with the other classes.

Editor's Note: *At press time, the decision had been announced that Alumni Weekend will be all virtual, with the hope of holding in-person reunions later in the year, if conditions improve. Please stay tuned. For more information, call 201-216-5163 or email alumni@stevens.edu.*

Classmates are reminded to update their contact info with the Alumni Office to ensure you're getting all the emails about the coming reunion. If on Facebook, please add the Stevens Class of 1966 group to your list. I'm hoping to be there, and also looking forward to seeing you there, as well.

Phil also sent along this update on his family's experience surviving the pandemic: "2020 trip to New Orleans to visit cousins on the Gulf Coast. On the return flight, I was greeted by a fellow passenger cleaning her adjacent seat with an antibacterial wipe and offering me one. And then, as I deplaned, seeing a squad of seven cleaners armed with spray bottles and lots of wipes gave me a clue something was up. Several days went by with first details on the pandemic and increasing paranoia in my circle of friends and family. First, my exercise class instructor asked us to social distance from each other, then our fire chief told us firefighters to do the same (I still respond to work outside or drive on alarms) and within days, we had the start of the lockdown in New Jersey. No exercise class, no socializing at the firehouse after alarms and no eating out at restaurants. And ultimately, the two-week July vacation for Cheryl and me in Maine, including a one-week coastal cruise to seven ports, would be rescheduled to August, then canceled with refunds and a cruise voucher for 2021. Now we're booked for the cruise this July and holding our breath that it will happen.

"With the first dose of the vaccine in my arm, and Cheryl scheduled for hers in late January, we are optimistic for better times ahead. Looking forward, I hope that our 55th reunion is like normal."

My experiences have been somewhat similar to Phil's...canceled plans, missed weddings, not seeing family and friends, but we continued to cautiously go out to dinner, exercise at home and at the YMCA, although working out while wearing a mask is not particularly enjoyable!

Graduate Log

ARTHUR E. IMPERATORE HON. D.ENG. '89

Arthur E. Imperatore, Sr. Hon. D.Eng. '89, the prominent entrepreneur who created a modern commuter ferry service for the New York metropolitan area, died on Nov. 18, 2020. He was 95.

Imperatore was a former member of the Stevens Board of Trustees and a highly generous benefactor to Stevens.

His career spanned more than seven decades and included ventures from mining, real estate, trucking and ownership of a sports team. But Imperatore's most lasting legacy is New York Waterway, the ferry service that he founded in 1986 — on old industrial land along the Hudson River in New Jersey — that became a critical link in New York City's transit network. Before the coronavirus pandemic, its fleet was carrying more than 30,000 passengers a day, according to *The New York Times*.

"The ferry company that had been derisively called 'Arthur's Folly' by critics at its start, grew into a mass transit system which has moved almost 300 million people to date and inspired competitors," *The Star-Ledger* of Newark, New Jersey, reported at Mr. Imperatore's passing. "It also prompted the redevelopment of acres of former railroad and industrial land on the Hudson River in Weehawken, Edgewater and other Hudson County cities and towns."

Through his development of the Port Imperial ferry complex and residential community in Weehawken, New Jersey, Imperatore "pioneered the model of combining bus transit from surrounding communities and workplaces to and from ferry terminals," according to *The Star-Ledger*. Perhaps his proudest moments came when his ferries carried thousands of survivors to safety across the Hudson, away from the ruins of

the World Trade Center on 9/11. And in January 2009, when a US Airways jet landed in the Hudson River, New York Waterway ferries came to the rescue of the passengers, aiding the "Miracle on the Hudson."

Imperatore co-founded APA Transport Corporation, a freight-hauling business, with four of his seven brothers in 1947, according to *The Times*. It became one of the most profitable trucking companies in the country.

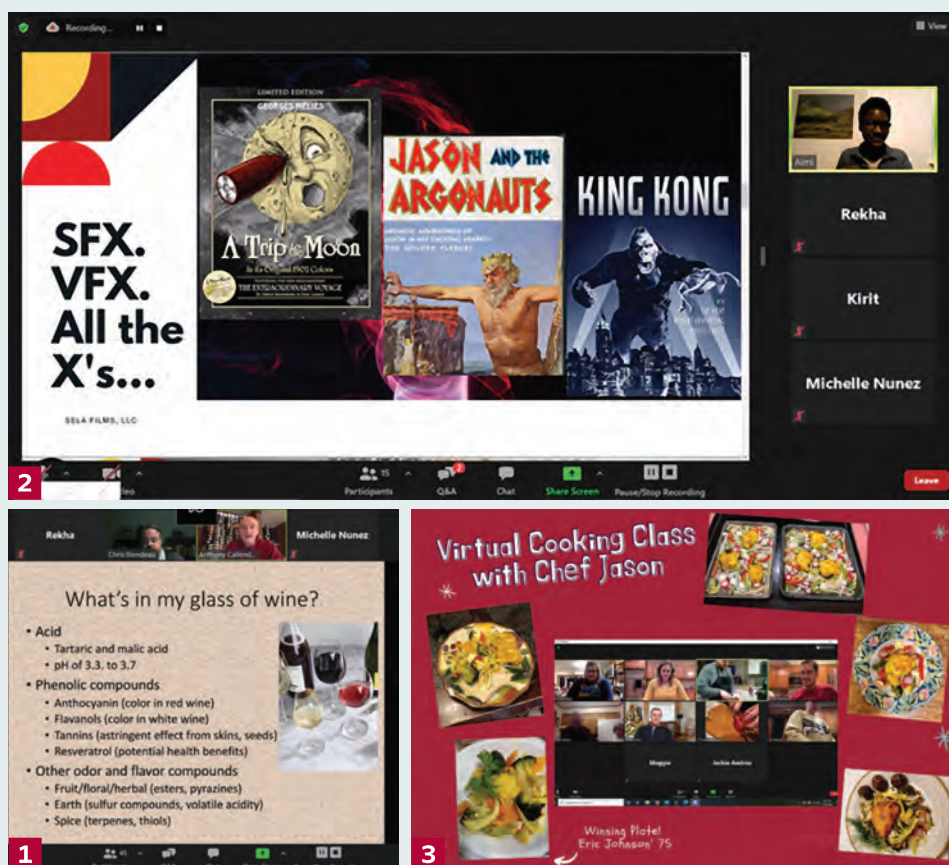
He was born in West New York, N.J., the son of a grocer and the ninth of 10 children, according to *The Times*. Imperatore served in the Army Air Corps during World War II.

Surviving are his wife, Dr. Mei-Ling Yee Imperatore; a son, Arthur Jr.; a daughter, India Imperatore; a stepson, Armand Pohan; and eight grandchildren.

Clubs

Clockwise, from lower left:

1. Between September and December, Tony Callendrello '73 hosted a four-part virtual wine series with experts from respective areas of the industry, adding a refreshing touch to the virtual format.
2. In October, Aimi Negbenebor Sela '04, a computer engineer turned filmmaker, hosted "Engineering a Movie," a virtual discussion on how computer-generated imagery (CGI) and visual effects are changing the landscape of cinematography and are impacting the way films are developed today. The event was sponsored by the Southern California Alumni Club.
3. And in December, Stevens Wisconsin alumni came together for a virtual cooking class with local chef Jason Veal.





▲ Gene Golebiowski '70 was elected a Fellow of ASTM International last year. Read more from Gene in the 1970 log.

Carolyn has now received her first COVID-19 vaccination, while mine is scheduled soon. We rarely missed an opportunity to go sailing; after all, that's an outside activity in the fresh air, the wind is blowing and you are socially distanced with about one mile between boats. However, we would prefer to have friends accompany us!

With luck things will return to a more normal existence in a few months...only time will tell! — [Gerry Osborne](#); (704) 425-5722; [Scandia44@windstream.net](#)

'67 January 8, 2021 — This is what I emailed my classmates: "I have been informed that the next issue of *The Indicator* will celebrate Stevens' 150th birthday. For the '67 log for that issue, I wish to publish a different type of log. Please send me one sentence that captures what you consider to be the core essence of your experiences, education and time at Stevens and how that has impacted your life."

To set the stage, I quote from Jerry Havel: "I have been doing a lot of thinking about your request, in particular trying to think of a sentence that truly identifies the impact of Stevens on my life. I have thought a lot about the education I received, and my resulting ability to properly identify and assess problems and develop solutions. I have thought about the development of my personal values and skills, my goals, my

maturity and my ambitions over the years I spent there. I think if I were to sum up what going to Stevens really did for me, it could simply be put as follows...

Bob Atkin: "I can't claim to have reached *ad as-tra*, but the *per aspera* was a damn fine launch pad."

Ralph Bellrose: "Stevens prepared me to deal with stress and adversity and still maintain my core values."

Hank Berry: "Stevens made the difference between just being a mid-level design manager in a large company and founding my own automated controls engineering company, which I still own and run today."

Len Calone: "My education and experiences at Stevens set me on a pathway toward a rewarding career and lifelong friends."

Lou Caruso: "I credit Stevens for enhancing my critical thinking skills, especially useful in these complex days of many serious issues."

Tom Corcoran: "The combination of a Stevens education and the GE training program gave me the confidence to believe I could be successful in achieving my career goals...thankfully, with great support from my wife and others, I was able to do that."

Don Daume: "Gratitude, confidence, curiosity, tact, probity."

Mike Dawson: "I'm always thankful for the education I received, which allowed me to have three separate, rewarding careers."

Frank DiLauro: "The challenges, opportunities, and, most important, my realization that I can handle just about anything that comes my way after four years at Stevens, have impacted all of my life."

Bob Eisenberg: "In addition to an amazing education that enabled me to pursue a career and live the life I'd always imagined, Stevens also gave me the opportunity to make friendships that are still meaningful more than 50 years later."

Mike Grobert: "Stevens prepared me for my life in IT. I recall getting up to work on the computers at 2 or 3 a.m. since that was the only time frosh were able to use it."

Jerry Havel: "I arrived as an 18-year-old child and graduated as a 22-year-old man."

Steve Herman: "Some of the best and most meaningful business relationships I've had over the 50+ years since graduation have been with fellow Stevens alumni. Technically astute yes, but some of the most well-rounded and personable people one could hope to know. Thank you, Stevens."

Bob Jessup: "My Stevens education gave me the background I needed to pursue a variety of high-powered, cutting-edge, action-oriented career paths."

Alex Kiczek: "First day at Stevens: there is no such thing as a free lunch!"

Bob Kopki: "Stevens opened several doors of opportunity for me but, of course, I needed to perform at a high level once I was through those doors."

Ralph McLain: "Met my wife there; the best thing that ever happened to me!"

Lou Milano: "Develop a thought process and then challenge it."

Frank Mueller: "It taught me to use my education and apply it to the best of my abilities."

Robert Naidel: "Stevens taught me how to think."

Enrique Origgi: "Science and social knowledge away from home."

Bob Payne: "Challenge → Humility → Perseverance → Confidence!"

Joe Pfeuffer: "Prioritize what's important. Be accurate in what you do. It is not what you know but how you apply what you know. Don't compete but allow others to help you reach your objective. Most important is to understand the concept, leave the details for others. Every event has two sides, yours and the other guy's."

Ray Pujnys: "The Honor System."

Dan Rusinak: "I learned to think and problem solve. Stevens fostered my curiosity and stimulated my imagination. As to becoming a wizard..."

Albert Schwartz: "As a freshman, I was surprised at how much more we were covering at Stevens than my friends in similar classes at Ivy League schools."

Tom Schneider: "Stevens provided an education in STEM and advanced courses which accelerated the start of my dissertation research such that I finished my physics doctorate at Penn in four years (1971)."

Brian Schulman: "My fondest memories at Stevens are of the warmth, friendship and support of my fraternity brothers in Beta Theta Pi."

Rich Sieglitz: "I learned from Stevens that I do not need to know everything, but rather know where to find answers from self-study, observation, learning from others' experiences and knowledge, to be honest, to help and support others."

Jeff Seeman: "Stevens converted me from a sheltered child to an adult who was certain of his ability to thrive on his own with both honor and initiative. Roots and wings."

John Spaziani: "I greatly value the positive

experience of my Stevens education, which provided many lifelong friendships and a significant educational foundation leading to three other degrees (in engineering, business, and counseling and human development)."

Wayne Steadman: "In our first assembly, the dean told us that we would transform from boys to men. He was right! The academic and social demands forced us to learn how to deal with opposing forces to achieve success while developing lasting friendships and lifetime memories."

Gary Stein: "The Stevens Honor System provided the foundation for my ethical behavior and my ethical perspectives in the workplace."

Thanks for writing and reading! But thanks especially to one of you for participating, "Jeff, I have not corresponded before, but your request triggered my thinking." For him to write for the first time in 53-plus years just makes my day! And I hope that it will warm yours, too, for he was writing to all of us.

Be safe and well. — **Jeffrey I. Seeman; jiseeman@yahoo.com**

'68 *January 8, 2021* — Since the pandemic has continued, and has escalated in some parts of the country, I again hope and pray that you and your families are safe and healthy. My wife, Nancy, tested positive in early December, quarantined at home and then had to be admitted to the hospital because of difficulty breathing. We are blessed because she only spent a few days in the hospital and was released, but she has had a slow road to recovery with respiratory system weakness. It's a nasty virus which we experienced firsthand. You do not want to contract it.

So, it's on to other news. I started the last log with **Norm Dotti**, but was not able to report all of what he told me. Here is the latter part of his message:

"A researcher at Davidson Lab, who also taught some of the freshman programming course sections, asked me if I'd want to be a grader for homework and exams. That was a paying job (at minimum wage, which I think was \$1.25/hour)! That evolved into a part-time and later summer job at Davidson for the rest of my time at Tech. My own air-conditioned office, writing programs, working with test data and modeling underwater vehicles sure beat my previous summer job of loading trailers at a manufacturing plant! I got to work with 'big' computers; the UNIVAC 1105 at Tech, IBM 7000

series machines at a service bureau the lab used and a (then) supercomputer, a CDC 6600 at NYU (as best I recall).

"I subsequently got into early personal computers and hardware. That's when I began working on interfacing devices to them to pull out and process the test data. Back then it was rare for an instrument to have a computer interface, so we designed and built hardware to do the job. Out in the Chicago area and later, where I first worked as a consulting engineer, I set up several minicomputer systems for the businesses and their labs.

"When we started developing the environment, health and safety (EH&S) software system in the mid-80s (that evolved over a period of about a decade) there was little in the way of a multi-user PC and networking. We made hardware changes to IBM ATs to juice up the speed, memory and storage, and ran UNIX on them. The corporate mainframe people hated us for stepping on their turf. PC networking blossomed, first with Netware, and then when Microsoft finally got it straightened out. Now, distributed computing and 'the cloud' are ubiquitous. We've had customers running our EH&S software literally globally. Not bad from a start feeding punch cards into a single use computer the size of a car and less powerful than my HP scientific calculator. (Remember slide rules? Solving labs and test questions on them? Ugh!)

"In my off time, I work with model trains; there are a lot of computer control and other techie things one can do with them. I was always a bit of a car nut (my father was a Chevy dealer; I bought a '68 Z/28 right after graduating from Tech). While out in Illinois in '76, I bought a '67 Corvette coupe, small block. Once we moved back to Jersey in '79, I drove it occasionally for a few years and then it ended up sitting — no exaggeration — for 30 years in my garage. Rebuilt it in 2010-11 (with a lot of help). It is now here on a lift in Point Pleasant, and we do drive it from time to time and go to car shows. Last July, I took it to one at the car dealership where my father was an owner many years ago. In 2014 I also bought one of the (then) new 'Vettes, so now I have a matched pair; both 'sting rays,' both blue. Waiting for the next model of the new mid-engine 'Vette to come out, maybe next year.

"It's been an interesting 50-plus years since leaving Tech. I'd wanted to be a mechanical engineer since I was in fourth grade. My engineering now is pretty specialized, but the diversity of

problems, instrumentation and data processing, and court appearances all keep it interesting. My time at Tech taught me a lot that has held up over the years."

Thanks, Norm, for the 50-year update. I appreciate you taking the time to share your "life after Stevens" adventures.

My next log will feature **Michael Hollander**. He is one of only four classmates that I know of who are still working. The other three are **Walt Ulrich**, **Bruce McDonald** and **Marty Valerio** (part time). If there are others out there, drop me a line and let me know what you're up to. Your classmates would love to hear from you.

Till then, stay safe and healthy. — **Allen A. Foytlin; foytlin01@gmail.com**

'69 *Jan. 29, 2021* — At this difficult time — when we all have no choice but to face the challenges of the pandemic — and on a happier note, as Stevens celebrates its 150th anniversary, we suggest that you follow the CDC's mitigation strategy. This includes avoiding crowds, wearing masks when you are out and about, washing your hands frequently and getting the vaccine when it is available in your area. As we are sure you know, many of us are eligible to get the vaccine today, and we hope that you have gotten yours or have been scheduled to do so. Hopefully, if everyone does all of these things, we can get together once again at Stevens when this dreadful pandemic is behind us.

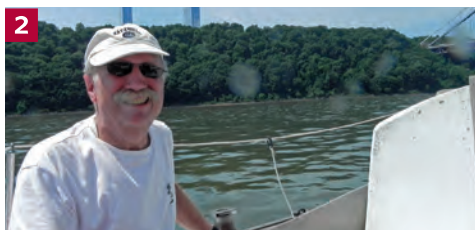
We have not heard from you lately. Please tell us what you have done to stay safe and well during this crazy time. We'll publish your updates in the next issue. As we write this today, our families are safe and well, and we hope that yours are, too! — **Gerry Crispin, gerry@cxr.works; Ed Eichhorn, ed.eichhorn@medilinkgroup.com**

Virtual Alumni Weekend June 3-5, 2021

'70 *January 8, 2021* — 2020 is gone, and one of the worst investments we could have made last year was to buy a daily planner.

Our postponed 50th reunion is scheduled for Alumni Weekend this year, June 3-5, 2021, and will be virtual, with hopes for an in-person reunion in the future. Stay tuned.

We heard from Father **Gabe Costa**. "I'm still at West Point, enjoying every minute of it. Working on two books: one on baseball and one



1 Steve Bistak '72 has a passion for model railroading; this layout at his home has 100 feet of HO track. **2** Howie Fidel '72 recounts a sailing odyssey last year that included a view of Stevens; learn more in the '72 log. **3** Jerry Rainey '73 at the helm of his restored 1984 Boston Whaler, with Stevens Sailing cap.

on differential equations.” Gabe can be reached at gabriel.costa@westpoint.edu.

Weekly, I read the articles Jed Babbin has published. We also exchanged some emails during the pandemic. Jed wrote, “Staying home is getting old. We’re getting out of Dodge as often as we can. Dominican Republic in January, likely to Thailand in April (to see son number three and family who have finally gotten out of China) and a Mediterranean cruise in September, if all goes as planned. Other than that, I’ll content myself with writing and working out. I had a quadruple bypass eight years ago and the rehab process turned me into a gym rat.”

Jed is like me and many others as we try to remember to bring masks when we are out, but sometimes forget. His wife, Sharon, is just like me, as I hate wearing them and take them off the moment I get out of a store. Jed can be reached at jedbabbin@aol.com.

One of the honors we receive upon our 50th reunion is receipt of the Old Guard pins. For the spouses of classmates no longer with us, we were able to contact and provide nine of them with the Old Guard pins already. They are Ann (Ed) Atkins, Bernadette (Jerry) Schirra, Billie (Steve) Balashek, Jean (Paul) Kleinhans, Julie (Bob) Kayser, Penny (Bob) Berger, Renee (Vic) Gialanella, Sara (Jim) Schneider and Sharon (Craig) Naylor.

We need your help trying to contact Carol (Warren) Suggs, Jeanine (Jim) der Bedrosian,

Lorraine (Bob) De Maria, Barbara (Bob) Waters, and Marsha (Ralph) Booker. Contact information we had is not valid.

We also have other deceased classmates whose spouses we were unable to contact, or are unsure if they had a spouse. They are John Beard, Eugene Catania, Alan Cherdak, Ron Clements, Don Daher, Bill Douglas, John Paul Hartofil, John Hughes, Richard Kielar, David Lynch, John Lynch, Dave Pollack, Pete Sapios, Dave Tanis, Rudolf Turner, Tom Virbila and John Yurko. Any information that can be provided will help us provide all surviving spouses with the Old Guard pins.

I hope to see as many of you as possible at our 50th! — Eugene A.J. Golebiowski; eagolebiowski@att.net

Virtual Alumni Weekend June 3-5, 2021

'71 January 8, 2021 — Nancy and Bob Munczinski took a three-week vacation to New Zealand, combining great sightseeing with adventures. They did a Harley-Davidson ride, jet boat, ziplining and glacier explorations by boat, helicopter and ski plane. Food was also an adventure, highlighted by mussels, lamb and the great New Zealand wine. They bought a second home in Kiawah Island, South Carolina, where you can still do beach walks, boat rides and golf in the winter. It proved to be a nice place for

daughter Anneliese, Jon and grandkids Hunter and Charlotte to visit for warm weather. Their social life changed from restaurants, parties and gyms to good books.

Ginny and Paul Gaffney also hunkered down, going to an extreme and finally parting with their glorious RV (DaBus). Not being able to do the Albuquerque balloon fiesta this year was the straw that sent it to a new owner. Just before COVID-19 struck, they committed to a major house renovation, which was finished by July. Daughter Elizabeth welcomed her second child in May, and they were still able to make a number of visitations to see them in Charleston. Their family’s life included the common adjustments to working at home, online classes and temporary virtual schooling.

Sharon and Dan Bagnell kept busy in this very different year. They did sneak in trips to North Myrtle Beach, South Carolina, in June and September, staying in a private house away from the public, and relaxing on the beach. Sharon taught adult Sunday school through Zoom to 25 students — including some from other states and out of the country. Staying at home led to a multitude of home improvements — lots of painting and redecorating, then gardening in the warm weather. Since Dan had learned from his previous bathroom renovations, they contracted that work out this time. Son Patrick bought a new house big enough for their family of four and moved in before Christmas. The kids visit weekly, and Dan is teaching 4-year-old Henry all his garage workshop skills. Son Peter and family moved in with them for a few months when a water back-up flooded their house. It gave them a lot of time to spend with granddaughter Abigail, who is now an amazing 12-year-old.

Here’s an update from John Schroeder, from last August. “Have used the Zoom technology to have regular connect meetings with a couple of groups of my Alpha Sigma Phi classmates, including 1971 grads Ralph Cohen, Donald Osborne, John Gagliardi, Tom Lennon. All doing well, a few working a bit part time and scattered throughout the country. Also, with 1972 grads Len Metzger, Rick Bradshaw, Robin Braun, John Shultis, Steve Bistak, Matt Ruggiero. A split between full, part time and retired.

“As for me, my new assignment, which started February 2019, has been running the foodservice business for Marmon (a Berkshire Hathaway company). After reorganizing the business, COVID hit. Many of you understand the effect of this on the foodservice business, where our big customers

are folks like McDonald's, Burger King, Coke, Pepsi and the like, all of whom are hurting and not nearly as interested in buying the equipment we sell including beverage dispensers, commercial toasters and holding bins and similar. So, a tough 2020 and likely full recovery is a couple of years out, but I am definitely enjoying the challenge. In the meantime, we are up to a final tally of 15 grandkids (whom we can only see on Zoom) and living in Middletown, Delaware (left New Jersey after almost 40 years, to a much better tax situation). John Schroeder"

On a personal note, my wife Patricia passed away last October. We were enjoying a great vacation in Utah, when she had a massive pulmonary embolism, blocking the blood flow to her lungs, which her heart could not overcome. We had 48 wonderful years together, three great children and six fabulous grandchildren. I miss her so much and my life for now is really sad and lonely. I keep going thanks to tremendous support from my children, grandchildren and many friends.

It is now our year to celebrate our 50th reunion! The preliminary reunion schedule is June 3-5, 2021 (together with the Class of '70), but it will be a virtual-only event. You should have received several correspondences from the reunion committee regarding activities for that weekend and our reunion fundraising efforts. We are

hoping to raise enough money to make our Class of 1971 SIT scholarship a permanent endowed award. When our in-person reunion does happen in the future, there will be reason to celebrate the demise of COVID-19 and see our old friends!

— William F. Stengle; wfs20hlm@aol.com

'72 *Written collaboratively by Enrique and George*
January 8, 2021 — Hello fellow classmates and Happy New Year!

We are still struggling with many of the problems which the COVID-19 pandemic has wrought upon us. Let us hope that the vaccines are distributed quickly to the general population, and that they are effective enough to stop this horrible disease once and for all. I pray that this New Year will bring you all much-needed relief and good health.

Last summer, while visiting Wildwood with the grandchildren, **Steve Bistak** (Alpha Sigma Phi, bistak@verizon.net) invited us to his house in Cape May, New Jersey. As usual, he and wife, Paula, were excellent hosts and treated us to a delicious meal together with interesting conversation. While touring their new house, we stopped to admire his new train set being built to commemorate key events in Steve's life. Impressive! I convinced him to tell us all about it.

Here's Steve's report.

"I have always had a love of model trains, starting with a Lionel set running around our Christmas tree when I was a kid. My Dad and I later expanded that layout to two 4'x8' sheets of plywood. My interest temporarily faded as other activities held my attention through grammar school, high school and college. My next layout, HO scale, was made shortly after getting married in '75. We moved around the country a lot and always sold the latest layout when we moved on. Had four more layouts and now the latest. This layout measures about 10'x14' with about 100 feet of HO track. The theme is 'friends and family' with the settings and buildings chosen to represent key events and locations regarding my employment, hobbies, etc. It will always be a work in progress — never to be finished. Also, I'm working on a large HO layout at our church. This layout will be part of an outreach program to kids 12 to 80, but remains in an early stage due to COVID-19 setbacks. The layout is L-shaped 20'x20' with about 300 feet of HO track." Thank you, Steve, for writing!

Now, I would like to mention a professional honor bestowed on our hard-working class secretary, **George Johnston**. George was among only five New Jersey attorneys featured in the 2021 Intellectual Asset Management's Global Leaders guide. To qualify for inclusion in IAM's guide, individuals must be ranked in the gold tier of IAM Patent 1000 publication, which identifies the top attorneys and law firms in the world's most important patent jurisdictions. Inclusion is not only based on IP expertise, but also on one's ability to innovate, inspire and go above and beyond to deliver results for their clients. Well done, George, and well deserved!

Now before I turn you over to George, I'd like to remind you that our 50th reunion is on the horizon. Our reunion committee is forming, and we look forward to your coming aboard. Don't blink or you might miss the train.

Take it away George...

Thanks for the kind words, Enrique. Having retired at the end of December, it is nice to go out on a high note.

Howard Fidel (hffidel@gmail.com) writes us about his sailing odyssey.

"I spent a long Fourth of July weekend motor-ing my recently acquired Tartan 27 sailboat from Huntington Harbor, Long Island, to Tarrytown, New York. One hour into our trip, the motor died. Fortunately, we had enough wind to sail back to



1 Catching a Yankees/Braves baseball game in February 2020 in Venice, Florida, from left, were Pat Riotto '74, Glen Babcock '71 (who provided pre-game entertainment for the crowd) and Charlie Pihokken '74. **2** Gathering at the home of Stephanie and Pat Riotto '74 in February 2020, seated from left, are Dr. Ginna Walsh, Pat Riotto '74, Carol Devirgilio, Stephanie Riotto. Back, from left: Catherine Pihokken, Joe Devirgilio '73, Charlie Pihokken '74 and Tom Walsh '74.



Huntington. The diesel fuel was contaminated. As a backup plan, we installed an external fuel tank, bled the fuel system and off we went. On Saturday, we fueled up with 17 gallons of diesel. There was no wind, so we motored out to Long Island Sound, and headed to City Island where we left the boat overnight. We restarted our voyage on Sunday morning passing under the Throgs Neck, Whitestone and Triborough bridges. We then transited Hell's Gate, down the East River to Battery Park, turning up the Hudson.

"We passed Stevens! Once we reached the George Washington Bridge, we realized we didn't have enough fuel to complete the trip, so we headed toward a marina in Alpine, New Jersey, but one mile south, we ran out of fuel (fuel line leak). Sea tow took us to the marina. After refueling, we finished the last leg of our journey, arriving in Tarrytown. It was good that we made land before dark, because none of our lights were working (I brought flashlights just in case)." Howie, great photo of you with the new Stevens dorms rising in the background.

Also, congratulations to Howie for co-authoring a 13-chapter book titled *Instrumentation Handbook for Biomedical Engineers*, published by CRC Press (2020). As Howie puts it, "Although I had written a few published papers before, this is my first, and probably my last book. The handbook is geared toward students. Hopefully, some of them will find it useful." Howie, thanks for writing. — **George W. Johnston**, gwjohnstonjr@msn.com; **Pres. Enrique L. Blanco**, elbmcb@optonline.net

Don't see your class log listed? Send an update to alumni-log@stevens.edu or call 201-216-5161.

'73 January 8, 2021 — First off, your class officers all hope that you and your families are safe during this pandemic. Being part of the "higher risk category" isn't very appealing, but we urge everyone to stay safe until they can get a vaccine. After all, nobody wants to miss our 50th reunion in 2023!

We heard recently from **Jerry Rainey**, who writes: "I've been retired five years now, living on Maryland's Eastern Shore and enjoying life. My wife Betty and I were married three weeks before graduation back in 1973, and today we have five grown daughters and six grandchildren. Following ROTC, we served four years in the Air Force, and then I worked for a number of computer system integrators that primarily supported the federal government. I got to build some interesting stuff in the defense and intelligence communities, as well as leading a few projects for civilian agencies. After about 20 years in technical management, and about 20 years in program management, I finished up in business development and retired. These days, I volunteer at a homeless crisis center where I make breakfast two days a week and help people find work and re-enter mainstream society. I lead a team that creates resumes, performs job searches, coaches applicants for interviews, and occasionally procures appropriate clothing for the first day of work. It still leaves plenty of time for fishing, sailing and model airplane flying on the Eastern Shore. One of my grandsons has Stevens on his short list for possible entry in 2021. Life is good."

"Boots" Miller reached out with an update. "Mary and I are still alive and well in Dothan, Alabama. We survived Hurricane Sally with no

wind damage but plenty of rain (about eight inches in 24 hours), so the yard is a swamp. Hard to believe I have been retired for four years now. We had lots of travel planned for this summer, but COVID-19 derailed those plans. Tell the gang we said hello. If any of you ever come through southeast Alabama, let us know."

Larry Nummy writes: "Greetings to all in the Stevens alumni community who know me. For many, it's been a long time since we've been in touch, so I'm writing to share a glimpse of some aspects of my life lately. My wife, Karen, and I continue to enjoy more than ever the outdoor physical activities that have been part of our lives for many years. It's been a great way to take the edge off worries about COVID-19. I'm fortunate to say our family has avoided it to this point, and we look forward to brighter days in 2021. This year marks the sobering realization that we are now the parents of four adults over 21 years of age: Kate, 34; Tom, 32; John, 30; Matt, 21. Next year I can say that Matt is the second in our family to graduate from Stevens. (Yikes! Where does the time go?) We are very proud of the life path each of our children has chosen and consider ourselves fortunate for the rewarding experience of witnessing their personal growth as they progress.

"After 27 years employed with Boehringer Ingelheim Pharmaceuticals Inc., it was with mixed emotions that I retired on June 30, 2017. The journey in chemical process development for active pharmaceutical ingredients, kilo lab scale-up, and pilot plant operations was more rewarding than I had hoped it would be. It afforded much experience in drug development, project and team leadership and the chance to



1 Ken Wahl '76, far right, and his family during the holidays. **2** Frank Roberto '76, far right, and his family, Thanksgiving 2020. **3** Golfing buddies, from left: Tony Bazzini '81, Dave Kamrath '71, Tom Terris '79 and John Dearborn '79.

Marriages

Jaimie Mastrogiacomio '16
to Christian Grapel, on June 26, 2020.

Obituaries

W.J. Axt '36 11/1/20
E.F. Egan '40 7/15/20
H.E. Schrank '43 10/7/20
P. Savage '46 2/9/20
J.J. Crate '47 10/10/20
J. Schlig '49 12/28/20
J. Provetero '50 9/13/20
A.F. LeBreton '51 7/28/20
H.H. Pine '51 9/10/20
J.G. Folker '52 8/6/20
F. Menton '53 2/26/20
J.A. Gatti '54 12/27/20
D.F. Daly '55 10/15/20
W.J. Sluka '55 7/30/20
H.H. Oelkers '57 10/20/20
D.V. Campbell '58 6/8/20
A.C. Bahnsen '59 10/6/20
R.T. Grant '59 5/24/20

E.D. Smith '61 11/26/20
J.M. Cierkowski '62 12/12/20
R.M. Treidel '64 1/24/20
J.C. Wirth '64 3/9/20
R.J. O'Leary '65 8/4/20
V.B. Winston, Jr. '65 11/10/20
G.R. Horensky '66 12/16/20
D.B. Pearson '66 1/10/21
R.L. Stanley '67 10/30/20
A.J. Sullivan '68 11/7/20
R. De Stefano '70 5/16/20
J.J. Hughes '70 5/25/20
R.M. Kielar '70 7/26/20
L.M. Sandler '70 11/18/20
D.C. Sulzer '70 12/3/20
R. Turner '70 6/3/20
E.J. Goodwin '73 11/16/20
P.H. Bello '81 M.S.E.E. '84 1/27/20
S.H. Reyes '97 10/28/20
L. Guzinski '05 1/6/21
T.M. Sheridan '10 8/8/20

Graduate School

R.J. Poulin M.S. '57 9/12/20
M.J. Wall M.S. '58 7/23/20
P.J. Berner M.S. '59 7/28/20
R.G. Vose M.S. '59 7/30/20
R.A. Munger M.S. '61 12/16/20
R.B. Cadmus M.S. '62 10/28/20
R.A. Aronowitz M.S. '63 12/18/20
H.H. Schloemer M.S. '66 10/14/20
B.R. Davis M.S. '68 8/1/20
T.A. Farragher M.S. '68 11/1/20
T.J. McGurn M.S. '69 8/20/20
D.J. D'Stefan M.S. '71 4/13/20
J.A. Samely M.S. '75 7/29/20
J.M. Van Assen M.S. '84 12/21/20
T.C. Knight M.S. '92 12/19/20
A.J. Rupel M.S. '94 6/7/20
R.J. Johnston M.S. '96 6/4/20
R.J. Carr M.S. '01 6/30/20
J.E. Nucci M.S. '16 10/28/20

Faculty/Staff

C. Suffel Hon. M.Eng. '85 2/4/21

mentor many younger chemists. Yet, I felt I would like to take a new tack. The rest of that summer, I decompressed by spending a lot more time outdoors and visiting friends in the process. By the fall, I was energized to apply the skills and work experience I had accumulated over four decades to a subject that increasingly attracted my concern and passion over the last two decades: the trajectory of climate change. I soon found an outlet for my energy as a volunteer at the Hudson River Maritime Museum in Kingston, New York. There, I have been working with several others to inject climate change content into the portfolio of new and existing exhibits. I'm particularly enthusiastic about the development work I've undertaken to create an automated exhibit that visitors can launch to witness in real time the powerful heat trapping property of the greenhouse gas carbon dioxide. This challenging goal is nearing completion to become part of the Museum's new 'Warning Signs: Climate Change in the Hudson Valley' exhibit to be launched in 2021."

On a sad note, 'Tip' Goodwin passed away recently. The following is from his obituary:

"Edwin 'Tip' Jacob Goodwin III passed away on November 16, 2020 in Southlake, Texas. He was first and foremost dedicated to his wife and daughters. It brought him deep pride when his family grew to include his sons-in-law and, most definitely, his granddaughter and two grandsons. He loved going to the beach with his family, keeping his backyard lush and pool pristine, and

carrying on the family heritage of building and improving his and his daughters' homes. He was a proud Christian.

"Tip, who held leadership roles with Delta Tau Delta fraternity at Stevens, was an electrical utilities expert, designing transmission line towers, creating patented innovation and developing novel research in the field. He was a principal of IEEE, advisory board member of Transportation & Substation Design & Operation Symposium (TSDOS), among other professional organizations. His colleagues remember him fondly as a mentor and friend, and his impact to their careers and the industry will be greatly missed."

Our class secretary, **Tony Callendrello**, led a series of four wine-related webinars. These covered topics such as how wine is made, how to taste, natural wines, food and wine pairing, and preserving open bottles of wine. For those who don't know, Tony is a certified specialist of wine who opened a wine bar in 2018 after he retired from his "day job."

Your class officers have been reaching out to our classmates and reminding them about the Class of 1973 Endowed Scholarship. The effort to create this fully endowed scholarship began in 2018, and will end with the presentation of our class gift at our 50th reunion. Many of our fellow classmates have generously contributed, and we look forward to seeing many more make a contribution to supporting students in need of financial assistance. And, we have been making

good early progress. To date, we have raised \$641,761 toward our goal of \$2,000,000. For those who are reviewing their estate planning, adding the Class of 1973 Endowed Scholarship as a beneficiary will make a real difference to the recipients of that scholarship. — **Anthony Callendrello**, acallendrello@comcast.net; **Frank Vastano**, fvastano@comcast.net

'74 Dec. 11, 2020 — Here's an update from **Charlie Pihokken**. "2020 has to be one of the most unusual years of our lives! Hopefully, more from '74 have had some time to drop you a line for the log. We are well and surviving quarantine. We were able to help out our daughter's family by having them live with us during the first six months of quarantine while they were able to work from our home, and we took care of the grandkids.

"Just before quarantine started, we squeezed in one last flight and trip to Florida in late February/early March to visit Stephanie and **Pat Riotto** and take in some Major League Baseball spring training. Never thought that the two Yankees games I attended would be the only ones I would see in 2020. Be well, Charlie."

Charlie's update was very welcome, thanks Charlie!

In response to my February 2020 log "you know that you were a Class of '74 student if..." **Norbert Tufel** wanted to share the following anecdotes:



The Class of '77 gathers for its 10th reunion in 1987, left, and for its 40th in 2017. Per Paul Porzio, in the '87 photo, back row, from left, are Brian Allan, Camille McQueen, Susan Orshan, Debbie Iapicco and others. Front row, from left: Susan Barbash, Robert McQueen, Scott Orshan, Dawn Ortell, Vic Baran, Debra Van Sickle.

"The one I recall is going to the library basement to type up my punch card deck and picking up my printouts later (sometimes much later). I have a correction — IT WAS A PDP-10! The number is burned into my memory. I also remember the MedFor compiler that was supposed to 'help' us. At a meeting of the class late in our freshman year, a faculty member admitted that when MedFor gave a diagnostic message, sometimes even the programmers couldn't figure out what it was talking about.

"During the senior interview process, I spoke informally to an IBM recruiter. I told him the sad story of the PDP-10 and how it was described on a bathroom wall as 'Piles of Duck Plop 10 Feet High.' The recruiter asked me to spread the story around, as the PDP-10 was made by one of IBM's competitors."

It's a new year of COVID, as you are reading this: hope you are healthy, praying for our world, 21 will be lucky, and Per Aspera Ad Astra! —
Gary Jung; jungpackaging@msn.com

Virtual Alumni Weekend June 3-5, 2021

'75

Guest log by Karl Young

Jan. 25, 2021 — Dear '75ers,

I hope this finds you well and off to a good start in 2021. Our recent virtual class gathering on Zoom was fun and informative. We all agreed to have a quarterly virtual meeting. However, we only have about 50 percent of our class members' email addresses. So, please email me your current email address (ytiusaky@hotmail.com) if you have not been receiving my emails. It will be used to announce class activities only, not for fundraising.

Our class endowment is \$10,000 short from meeting the minimum \$100,000 in our Class Endowment. Once we meet this threshold, we can begin making awards. To that point we need to establish criteria for awarding scholarships.

Any suggestions you have are welcome.

Please tell us what you're doing these days; we all would like to hear what our fellow classmates have done and are doing. Email me and our class secretaries, **Harry MacArthur** and **Joe Krieger**. We look forward to hearing from you. Until then, stay safe, Karl Young, class president. —
Joe Krieger; joe.krieger.75@gmail.com; Harry MacArthur; harrymac@comcast.net

Virtual Alumni Weekend June 3-5, 2021

'76

Jan. 25, 2021 — **Ken Wahl**

sent along this happy family news about his children and grandchildren. "Nick and Jaime are expecting a baby boy at the end of March, their first child, our fourth grandchild, and third grandson. Jon and his wife and son relocated to Mt. Pleasant, South Carolina, in March 2019. We are loving retirement in our new Long Beach Island, New Jersey, home." See the family gathered during the holidays in a photo on page 94.

As for me, I will have retired from ExxonMobil by the time you read this, after 44 and two thirds years. I have no immediate plans upon retirement — just waiting for a vaccine and the chance to travel and see family. Just miss everyone. —
Frank Roberto; frankroberto76@gmail.com

'77

January 8, 2021 — Hello again!

It's nice to start this log knowing that there is a light at the end of the tunnel, and it's not a train, awaiting the distribution of the various COVID-19 vaccines. This makes thoughts of the 45th Anniversary gathering (June 2022) more positive. Here, retired life is starting to be more "normal" as all the little blips of getting used to Medicare and other issues continue to dampen out. Ironically, I still start every morning with coffee and the Outlook calendar (which replaced a to-do list), but I'm not as anxious about moving tasks to the right as

I was at work. HA! Unfortunately, the pandemic has put the stops on starting any kind of classes, either piano or coding.

Since this is the Stevens 150th Anniversary edition of *The Indicator*, I thought I'd review some of the things that have happened for us in the years since May 26, 1977.

Under the leadership of **Eric Olsen**, **Dawn Ortell** and **Jeff Iapicco**, we've had some terrific gatherings aside from the anniversaries at Stevens. In October of 2019, we had a really well-attended get together in Washington, D.C., with a visit to the Dulles Annex of the Air and Space Museum, the Newseum (we were lucky to be there three months before it closed) and the International Spy Museum. There were some great dinners and a surprising (HA!) number of visits to some of the better Irish pubs in the area. Prior to that, some of us gathered in Boston in 2017 and met at the classic McSorley's.

I guess it goes without saying that the terrain has changed drastically in the past 42 years. Much of the campus and Hoboken itself is no longer a familiar walk. Then, of course, the scene from Castle Point totally changed in 2001. For a few years it was mind boggling not to see the twin towers, but now there is the Freedom Tower in place, so that is a welcome sight. Of course, in any future visit to the campus, there will be the new experience of seeing the new University Center Complex in place.

Getting more nostalgic about our years at Stevens, some of you responded with memories (good or bad) of things like "zero hour" exams, the last party on "the ship," grabbing a beer with friends at the Rathskeller and playing bumper pool (Dawn noted, "Weren't we lucky that the drinking age was still 18 while we were on campus?"), and "poop" sessions at Sigma Nu. Personally, I can still remember Dr. George Yevick's lectures — always entertaining. I definitely remember sleep deprivation! There will always be that memory of getting ready for the

Wednesday AFOTC class after a LONG night and getting into uniform. Then, as I walked down the hallway at Hayden, I heard someone laughing. That's when I realized I had put sneakers on with the uniform. Not exactly regulation!

Conversely, do you remember the one year when streaking hit Stevens??? Oh, yeah — then there's just one phrase that needs be mentioned, "PUNCH CARDS!" I'm biased, but I have to add in memories of the WCPR light show and dances! Of course, who doesn't remember the smell of the coffee from the Maxwell House plant any morning when the wind was right? (When wasn't it?)

Getting close to the point where I have to sign off. Eric sends out a periodic newsletter. If you would like to receive it, email to Classof1977@alumni.stevens.edu. Stay in touch with us that way or — LinkedIn: "Stevens Class of 1977" — Facebook page: "Stevens Institute of Technology: Class of '77"

If you plan to donate, don't forget the Class of 1977 endowed scholarship. If you can't find your way to it on the Stevens website, please contact the Alumni Office or any of the 1977 class officers (Eric Olsen, Dawn Ortell, Jeff Iapicco or myself).

Given the publishing schedule, when you read this it will be 12 to 14 months to the Class of '77 45th Anniversary Reunion! Get your vaccine so we don't have to be socially distanced! By the way, I will be asking for inputs for your five favorite songs from your Stevens years to build the show I'll simulcast on both WCPR and Radio Fairfax, on the Sunday of our Alumni Weekend in 2022. Do look for that request on the '77 Facebook Page.

Take care, Paul Porzio, producer/host, Eclectic Hours, Radio Fairfax Sundays 10am-Noon streaming live. — [Paul A. Porzio; eclectichours@cox.net](mailto:Paul.A.Porzio@cox.net)

'78 January 8, 2021 — Here's a much-welcomed update from Kevin Delmour. For the first time in a long time, the deadline for submitting articles to *The Indicator* was approaching and I did not have anything new to send in, so I reached out to a few of our classmates. I got a very nice response from Kevin Delmour, which follows:

"First, let me start by hoping all's well with you and your family. We have been fine during 2020, in spite of all the craziness around us.

"During undergraduate studies, I was enrolled in a Marine Corps officer commissioning program. Upon completing that program and being awarded my B.E., I entered the Marine Corps as

a second lieutenant. After initial officer training in Quantico, Virginia, it was off to Pensacola, Florida for flight school. After being awarded my wings, I elected to fly helicopters and was stationed in Jacksonville, North Carolina. I remained there for almost ten years, conducting both training and real world operations. My primary aircraft was the Sikorsky CH-53E. Departing North Carolina in 1990, I was stationed in Yuma, Arizona. Yuma is the location of the Marine Aviation Weapons and Tactics Squadron, where I was an instructor for about two-and-a-half years.

"In December 1992, I was transferred back to Quantico where I joined HMX-1, the Presidential Helicopter Squadron. There, I worked in the operational test and evaluation department while training to become a presidential pilot. Upon achieving designation as a presidential pilot (commonly referred to as "Marine One") I was also reassigned as the aircraft maintenance officer responsible for the maintenance and crewing of the presidential aircraft. I had the honor of flying President Clinton for about two-and-a-half years, before transferring to Hawaii in 1997. In Hawaii, I would serve in my last flying assignment, as commanding officer of HMMH-366, a CH-53D squadron. (The CH-53D was the predecessor aircraft to the CH-53E.) After completing my command tour, I remained in Hawaii, performing in several non-flying assignments and was promoted to colonel.

"I decided to retire from the Marines in 2004 after 26 years of active duty and over 5,000 hours of flight time. Deciding to remain in Hawaii, we purchased a condo in Waikiki. I joined a small defense contracting company, whose primary contract was with the Naval Post Graduate School in Monterey, California. After a few years, the company was bought by a mid-sized defense contracting company, and we continued working the same contract. In late 2014, that company eventually relocated us to San Diego.

"In 2015, on a whim after buying a new Lincoln SUV, I decided to leave the defense contracting industry and sold Lincolns in San Diego. After about two years of selling cars, I decided to retire after making a 'deal' with my wife: I would take care of the house, cars, laundry, food shopping, etc., while she continued to work as a registered nurse. Although we both enjoyed San Diego, the crowds, taxes and expenses of day-to-day living convinced us to look elsewhere. Long story short, we moved to an over-55 community in the western suburbs of Las Vegas in 2018. My mom

(now 91) joined us from New Jersey, so the three of us live together along with a mini poodle that we 'inherited' when my wife's mom passed away in 2017.

"My wife and I are both still upholding our 'deal': I take care of the domestic side of things, and she is still working as an RN. Currently, she works for a company that provides home healthcare to former government employees who were involved in nuclear research and testing and now have cancer from their employment. As an aside, in October 2019, I returned to New Jersey to attend my 45th high school reunion and had the opportunity to drive through Hoboken and the campus. Let me put it this way: Hoboken and Stevens today are not what we had in 1978! Simply an amazing amount of change, yet still familiar. Regards to all, Kevin."

Thanks, Kevin, for the update and for your service. What a great career!

I look forward to hearing from other members of our class for future editions. — [John T. Jarboe; jjjarboe1@comcast.net](mailto:John.T.Jarboe@comcast.net)

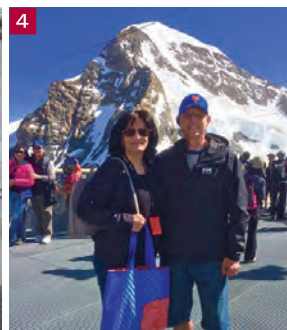
Virtual Alumni Weekend June 3-5, 2021

'80 January 8, 2021 — I hope that by the time you all read this, things are starting to improve with the world and life is returning to some sort of normal. May this find you all safe and healthy!

I was pleased to hear from Sharon Baker Zetterstrom, who wrote, "I am excited that I will be retiring this February, it was a long transition to my replacement, so I was working part time for the last year and a half after heading up the payroll department at Collabera, Inc. since 1996. John will continue working for a while; he has been with Siemens, Inc. for the last four



Members of the Class of '75 — Stevens' first class of women — have gathered for recent reunions. Read more from them on page 44.



Pedro Bello '81 MSEE '84 passed away in January; the '81 log includes touching tributes from his wife, Esperanza Diaz-Bello '82 M.S. '85, and their daughters Gaby and Monica. Here, **1** the family attends Gaby's wedding in 2018; **2** Esperanza and Pedro in 2019; and **3** Pedro on a family vacation to Budapest in 2019. **4** Dom Azzolini '81 and his wife, during their many travels.

years following almost two decades at Dialogic/Intel. We were blessed with our first grand baby last January, and I am lucky to be able to watch her two days a week! We keep busy with our hobby of ballroom dancing, which we took up in 2013, and looking forward to the end of COVID so we can once again go to dance weekends in the Catskills. We also spend as much time as possible down in Wildwood and Cape May, New Jersey. We had a condo on the beach block in Wildwood Crest since 2001, followed by a condo on the beach block in Wildwood, but sold it in 2018 when we bought a single-family house that will be our retirement home in the area. Looking forward to seeing friends from Stevens at the delayed 40th reunion. We spent an afternoon in Hoboken in November 2019 and enjoyed seeing the old sights as well as all the changes." Thanks so much for writing, Sharon, and congratulations on your retirement!

I also had the pleasure of hearing from **Stuart Knigge**. "To say that 2020 was a year to remember is an understatement. I will dispense with all things NOT Stevens related for now and skip right to me. After 40 years in the workforce, I've retired (I'll let that statement sink in for a bit...). The last 17 years I was with Pacific Gas & Electric as a principal engineer, primarily working as the lead test engineer for the hydro fleet. I couldn't quit cold turkey though, so I am doing a little part-time consulting while finally getting to enjoy life here in Napa, California, where I've lived for over 20 years. The camper van is packed and ready to head east as soon as it's all clear. I've been back to Hoboken a few times over the years, and I'm looking forward to seeing it again. It certainly has changed!" Congratulations to you as well, Stu, on your retirement!

I am sorry and saddened to have to share news with you of the loss of two fellow classmates. **Terrence McGovern** passed away on February 17, 2020 at Newark's Beth Israel Hospital. For 37 years, Terry was a civilian employee at the Naval Air Warfare Center in Lakehurst, New Jersey, as an electrical engineer in the visual landing aids branch. He was responsible for several visual landing aid systems used by the United States Navy, and occasionally would fly to U.S. Navy aircraft carriers to repair these systems. Some of his duties required him to travel and work in foreign countries, including Japan, India and Argentina. Terry was a member and former president of the Toms River Rotary Club. He enjoyed tennis (you may remember he was a member of the Stevens tennis team), skiing and golf and played in several golf leagues at the naval base. Terry is survived by his two sisters, two nieces and two nephews.

David Alexander Lane passed away on April 20, 2019. Unfortunately, I have very few details regarding how he spent his post-Stevens years, but know that he was a resident of Sparta, New Jersey. On behalf of our class, I would like to extend our deepest sympathies to the friends and families of both Terry and Dave.

As this magazine went to press, the Alumni Office announced that Alumni Weekend 2021 will be virtual. Watch your inboxes and join the "Stevens Institute of Technology '80" Facebook page for updates. We certainly hope to be able to reconnect on campus sometime in the future for our 40+ Anniversary!! Until then — take care, stay healthy, and be safe! — **Kathy M. Burkholder McCarthy**; kathybmccarthy@hotmail.com

Don't see your class log listed? Send an update to alumni-log@stevens.edu or call 201-216-5161.

Virtual Alumni Weekend June 3-5, 2021

'81 January 8, 2021 — The year 2021 has relevant significance to our class, marking 40 years since we left the Stevens campus as engineers, scientists and technologists, set out to solve problems, and to innovate for a better world. The last 40 years, I'm sure, have brought joys and challenges in our careers and personal lives — and then 2020 arrived! What a surreal year! As we enter 2021, let's remember what our Stevens education affirmed — science and technology play a critical role in our world, but without humanity, our societies cannot survive. As we get ready to celebrate our 40-year anniversary, here is some news from our classmates.

Don Azzolini writes that he will be celebrating 40 years at Con Edison in June. He continues to love his job and is still going strong as manager of facilities engineering. He shared that over his 40-year career, he has worked in most of the power plants, including Indian Point. He and his wife love to travel and have visited Switzerland, Italy, France, Canada and U.S. national parks, just to name a few — then COVID hit. He also enjoys ballroom and Latin dancing — cha cha cha!

Jerry Linden writes, "with our 40th reunion coming up, I guess it's a good time for my first entry to the class log. **Lisa Chirlian '83** and I have been married for 36 years, with the youngest of our three daughters finishing her senior year of college exactly 40 years after me. My career has been in IT consulting/enterprise software (Arthur Andersen, Deloitte, PeopleSoft, SAP and Oracle), moving from custom system development to package software implementation to business development, marketing and partnering. For the

last five years, I have been doing independent consulting, helping smaller and mid-size software companies with their marketing strategies and programs in areas such as analytics, security, process mining and Internet of Things.

"It's been fascinating to watch how technology has evolved over those years and the impact on organizations and business processes across industries. Our time at Stevens saw us go from submitting punch cards to online terminals (remember waiting for our turn in the library basement?) and video arcades joining the pinball machines in the game room. While personal computing was just starting to emerge, it was hard to foresee things like the internet, email, web browsers, cellular communications, Erp software, search, social media and Big Data. It will be interesting to see where we go from here."

Esperanza Diaz-Bello '82, M.S '85, wife of our dear classmate **Pedro Bello MSEE '84**, shared the sad news of Pedro's passing. "My beloved husband, Pedro Humberto Bello passed away on January 27, 2020, after a short but valiant battle with pancreatic cancer. Pedro, or Humbe as his loving family called him, was the best partner I could have ever dreamed of sharing my life with. I met Pedro on a bus to Hoboken going to Stevens, circa 1978.

"Pedro was eulogized at his service by me; his daughters, Gaby Bello Betancourt and Monica Bello; his brother, Luis Bello; his son-in-law, Alan Betancourt; my sister, Ana Maria Diaz; **Al Leyva '82; Esther Lopez '82**; and his boss, Lavinia Rickelts. Pedro had been a director of database services at Lexis Nexis RIAG for 17 years. Below are our daughters' words at his service.

"It is impossible to put into words how incredibly larger than life my Dad was. I still feel his presence with me everywhere I go. It is not because of the breadth of memories, though they are many and quite amazing, but his way of being, his philosophy for life. My Dad was an 'everythingologist' no matter what topic, a voracious learner and teacher. Engineering, space, history, literature, film, mangos — nothing was off-limits. One of his favorite topics to discuss during car rides was the root meaning of words. I would like to describe my Dad using the root meaning of his name. Pedro, derived from the Latin word 'petra,' meaning stone, rock. Dad is our rock (stubborn as one too). The family go-to handyman, mechanic and helpdesk. He was the chef, making Michelin star-worthy meals for us on a regular basis: delicious olive pasta, home-

made ice cream and the best Thanksgiving turkey (even though he himself did not eat poultry). He was our confidant for life advice or when we just needed someone to listen. He believed in always taking the high road regardless of the difficulty. He loved being called by his middle name Humberto, derived from the Germanic elements 'hun' meaning 'bear-cub, warrior' and 'berht' meaning 'bright, famous,' a Bright Warrior. Growing up, when my sister and I would fight, he would make us stand, noses touching, until we gave each other a kiss and a hug. His approach to struggle was to fight with love. The most important thing he taught me was unconditional love. When he got diagnosed with pancreatic cancer his only concern was his family. He was so brave and strong. Dad's last name Bello means 'beautiful man.' He is the definition of a beautiful man. The pain we all feel is a testament to the incredible love of Pedro Humberto Bello. I will spend my life honoring him, loving him and asking him for advice and when it's my time to go, the first voice I want to hear is his loud booming hello." — Gaby Bello Betancourt

"It is hard to put into words how special my dad was and how much he meant to me. He was adventurous and loved to travel. I got to experience so many wonderful moments with him that I otherwise would be too scared to try. We swam in a cave in Mexico, climbed an ancient Mayan temple, canoed in Lake Louise, went horseback riding in Banff, and so many more adventures. Dad also had a goofy warm presence that would always make me laugh. But, more importantly, my dad taught me unconditional love. He made me feel safe and was the person I would go to when I felt anxious or sad. I was lucky enough to be able to spend so much time with him the past few years, going on lunch dates almost daily, watching shows at night together, and more recently, spending every weekend remodeling my place. His bravery, his selflessness and his intelligence — I will miss him so much. As Nat King Cole said, he is "unforgettable in every way." — Monica Bello

Looking forward to hearing from other classmates. Join us on our Stevens Class of '81 Facebook page. — **Gloria M. Ron-Fornes; gmforne@gmail.com**

'83 Sept. 10, 2020 — Greetings from Alabama! I am currently on assignment for my company, working down by Dothan, Alabama, the Peanut Capital of the U.S.A. I wanted to touch base

with everyone and see how they are doing. I know that the Class of 1983 has not been reporting in for a while, so I'm hoping to change that.

In the Moran household, the center of our lives this past few months seems to revolve around this nasty little bug known as COVID-19. My family has been pretty lucky in that no one has been stricken with this illness, but it still has impacted our lives. I've had great difficulty traveling to my home in the Hudson Valley, New York, and even if I do return home, the State of New York recommends that I stay in confinement for two weeks before I can venture out, because of where I'm coming from. When I am working, most of the time it is out of my local apartment as the power station I'm assigned to has strongly encouraged all non-essential workers to work from home. Certainly, this helps my commute, but after a while the walls in my apartment seem to be closing in on me and I need to go out and just walk around. The highlight of the week has been going to the grocery store for supplies. On the upside, my cooking skills have improved somewhat. I've only set off the smoke alarm twice in the last month, but I'm getting better.

Another source of concern has been our daughter. Emma is starting her freshman year at Penn State - Harrisburg (yes, I tried, but she wasn't interested in Stevens), and it was right down to the wire as to whether or not she should go to the campus or stay home. She has only one class that is in-person, one out of three times a week. Still, after much back and forth, we decided that however curtailed activities would be, this was an opportunity for her to leave the nest and experience college life. To alleviate our anxiety, Penn State has been very good in keeping infections down and in monitoring its students, so my wife and I thought it would be safe for her to go. So far, she's been enjoying herself. She gets along with her roommates, and she has been able to socialize to some extent with her classmates (with all the guidelines adhered to, of course).

So, how has everyone else been coping with the pandemic? Anyone sending their children back to school, or keeping them home? It's a tough call and varies from region to region. If you feel like it, send us your stories as to how you've been dealing with this altered reality. I did finally break down and sign up on Facebook. It was nice to see a lot of old familiar names of people I had not seen in some time. If you want to send me a couple of lines on Messenger, be my guest! — **Timothy Moran; matp2m@aol.com**



Liz Lam Urbano '85 and her husband John, with their sons Michael, left, and Matthew, right. Catch up with Liz in the '85 log.

Virtual Alumni Weekend June 3-5, 2021

'85 January 2021 — Here's a note that Emil Stefannaci shared last August. "Hi Ellen, I hope you are doing well. Several alumni accompanied me on my annual fishing trip out of Belmar, New Jersey, last July. Joining me were Rich 'Smooth' Kluge, former Stevens Professor Dick Magee '63, and the Robbins family (Penny '86, Rob M. Eng. '96 and daughter Jen '20 – all three are alumni)."

And here's a family update from **Liz Lam Urbano**. "This has been one crazy year! My husband, John, has been working online from home since mid-March 2020, when the COVID-19 pandemic hit. He's continuing to work for MIT Lincoln Laboratory. I'm a stay-at-home mom, and we are still living in Stow, Massachusetts. Our older son, Michael, is a junior nursing major at Fairfield University in Fairfield, CT. He was glad Fairfield U. allowed students to live on campus in fall 2020, and his classes were a combination of remote and hybrid learning. He was able to do his nursing clinical rotation at Yale New Haven Hospital. Our younger son, Matthew, is a senior in high school. His high school has been 100% remote learning. We just found out recently that Matthew got accepted and will be attending Northeastern University in Boston in Fall 2021, with a major in the undeclared program in the College of Engineering. We are so happy! This was his #1 choice."

— Ellen Cronan; ecronana@yahoo.com

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Virtual Alumni Weekend June 3-5, 2021

'86 January 8, 2021 — As we work to get classmates to share updates for *The Indicator*, I wish you all the best in 2021.

Gina D'Angelo writes that in August 2018, her family moved from New Jersey to El Dorado Hills, California, which is in the Sierra Nevada foothills. Gina has spent the last four years dedicated to political activism to help save our democracy.

Pedro Chopite announced that the founding members of the Stevens Latin American Association will be holding monthly Zoom meetings. Anyone interested in joining can contact **Juan Ramon Falcon '87 M.S. '90** through Facebook.

Donna Urstadt is celebrating her 30th anniversary with her husband Dorian. They are looking forward to taking a cruise through the Norwegian fjords.

Jeannie Duggan Burgermeister shares that her second grandson, Joseph Ted Burgermeister, was born in July 2020. His middle name Ted is after Jeannie's father who passed away in late 2019. 2021 marks the 35th anniversary of our graduation. Please join our planning committee. Our event will be combined with the Class of 1985. Look for more information soon.

Manny Rivelo shared an update from his new company:

"Francisco Partners, a global investment firm that specializes in partnering with technology and technology-enabled businesses, announced it has closed on the previously announced acquisition of Forcepoint from Raytheon Technologies.

"Coinciding with the transaction close, the company's board of directors has appointed

Manny Rivelo as chief executive officer (CEO) of Forcepoint, effective immediately. Forcepoint is a provider of cybersecurity solutions that protects the critical data and networks of thousands of customers throughout the world.

"Rivelo joins Forcepoint with more than 30 years of experience across executive leadership, product management, customer support and sales functions with some of the world's leading security and information technology companies. Previous executive roles held by Rivelo include chief customer officer at Arista Networks, president and CEO as well as executive vice president, Security, Service Provider and Strategic Solutions, at F5 Networks, president and CEO of AppViewX, and various senior leadership roles at Cisco Systems."

Congratulations, Manny! — **Debi Motler;**
Dmot419@gmail.com

'87 January 2021 — **Joe Berberian** shared this update last fall.

"Hi, Debi. Several ITK members headed out to Deep Creek Lake, Maryland, for our annual college football trip, without any actual football, due to COVID-19. We had a blast playing cards, pigmania, cornhole and viking bowling as well as going boating out on the lake. We also shared lots of old memories while making new ones. Amazing to think how random room assignments (most of us were on Hayden Hall third floor as freshmen in 1983) have turned into a lifetime of great friendships. Friends who gathered included **Tom Brunner**, **Dan Musinski**, **Joe Berberian**, **Craig Pugh**, **Ruppert Russoniello**, **Bill Novak**, **Steve Tom** and **Chris Abbott**. Looking forward to next year's journey, God willing." —

Debi Motler; Dmot419@gmail.com



Jim Szipszky '89, left, and **Frank Roberto '76** recently celebrated their retirements from ExxonMobil. Frank spent 44 years with the company and Jim, 29 years. Working as a team, they were top recruiters for Exxon, recruiting many Stevens students over the years and serving as faithful mentors.

'89 January 8, 2021 — Another episode from the wild and wacky world of isolation! So much has changed since my last log (July 2020) yet some things have sadly remained the same. We are living through history in many remarkable ways! I truly hope and pray each and every one of you is doing well and finding a worthwhile distraction. I pivoted from a fulltime children's performer to music video producer/editor, graphic designer and topped it off with a huge helping of charcuterie (started a delivery business with a friend that is currently thriving). Never would I have dreamed any of that 12 months ago, but here we are.

Needless to say, I've been pretty busy and neglected to badger any of our classmates for updates. Lo and behold a couple of my besties came through in the 11th hour. Love you guys!

Chris Frank is the man. He writes, "Happy to report all is well with the Frank Family.

"Our oldest son, Alexander, finished his first semester at Notre Dame and arrived home at Thanksgiving. ND decided to delay the spring semester until February, so we are fortunate to have him home for a long break. He is using the extended time to apply for study abroad summer programs (Ireland, New Zealand or Jerusalem) on the off chance that travel restrictions are lifted. He was happy to be on campus to start his college journey. He was able to go to every football game and attended classes in person.

"Lauren, our 16-year-old daughter, is a junior in high school. She has been on campus for all of her classes, a welcome change given the virtual schooling in the spring. She is actively starting her college exploration. While C19 has limited on-campus visits, colleges have responded by significantly up-leveling their virtual capabilities/tours, which has enabled us to 'visit' many more schools in a much more relaxed and efficient manner. The next 12 months will prove an interesting time for her as she applies.

"My wife, Michelle, and I continue to work remotely. We are expecting Johnson & Johnson to announce their vaccine results soon. She works for the head of JnJ's supply chain, so they are on point to manufacture and distribute millions of doses when it is approved. The next few months will be another roller coaster, with the hope that life will return to normal by summer/early fall.

"I have been working at American Express for the last 12 years in marketing, leading data analytics and brand research. Amex announced

that we are slated to work virtually until the end of June. I do not miss the 3.5+ hour commute to NYC.

"I continue to teach at Columbia (quantitative intuition) along with **Paul Magnone '88**, except everything has moved online, which has enabled us to offer the class multiple times in the year and expanded the student pool to a global audience."

Speaking of said fellow Columbia professor, Paul (aka Feathers) also responded, "I have now been working at Google in the Cloud business for the past five years, managing complex partnerships (currently Deloitte and previously a set of boutique AI services partners). It's compelling to witness the advances in healthcare, life sciences and other industries driven by AI and advanced engineering. The Google office in New York City is expected to reopen in September, so the on-going virtual work environment will allow more time to get the sourdough starter right.

"Our kids have been fortunate to have in-person classes most of this school year. Luke, 11, continues to play hockey (left defense) and during this current shutdown we're thankful for the ice time we can get. The skating and scrimmages (with COVID masks on) are a welcome counterbalance to his Gifted & Talented classwork. Eve, 9, enjoys Minecraft with Luke, Girl Scout events (virtual ... yes, I can sell you cookies) and is either on the cusp of a singing career or just wants to drive mom and dad over the edge.

"My wife, Sue, continues to run her nutrition and eating disorder private practice with a

second location just opened in Greenwich. Fortunately, she can see many patients virtually.

"As **Chris** noted, we teach at Columbia University, in both the Exec Ed and Exec MBA programs, which are virtual through 2021. Ever onward..."

Ever onward, indeed! The mantra of the last year! Don't let time slip by...video chats could not be any easier!! Connect with a Stevens classmate. Sure, it might be awkward at first if you haven't seen each other for, like, 32 years but that will quickly resolve. In other words, please accept my call! — **Dawn Madak**; dawnmadak@me.com

'93 January 2021 — As Stevens marks its 150th anniversary during the 2020-21 school year, alumni across the generations may surely feel nostalgic about their time at Castle Point. "Voices from Castle Point" is a wonderful oral history series created by Leah Loscutoff, who is head of Archives & Special Collections at Stevens' S.C. Williams Library. Alumni and faculty across five decades share their Stevens memories, their personal journeys and stories, and more. Among the alumni interviewed is **Joelle Hinds**, who reflects on her Stevens and STEP (Stevens Technical Enrichment Program) experiences and gives some great career advice to young women. You can hear her story and others at library.stevens.edu/voices. — **Denise M. Bulick Cantwell**; pdcantwell@yahoo.com

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1 Chris Frank '89 and his family toast 2021 via Zoom. **2** Paul Magnone '88, aka Feathers, toasts to a healthy, happy new year. **3** Shant Karakashian '89, his wife, Mary, and their four sons celebrate New Year's Eve 2020 with Zoom panache.



1 Leonardo Palazzo '00 with his wife Adriane and their son Alexander. **2** Ryan Stecher '00 hangs out with his sons Jack and Adam. **3** Brian Towers '00, with his wife Erin and their children Laurali, Abigail and Brian, Jr.

Virtual Alumni Weekend June 3-5, 2021

'00 January 8, 2021 — We want to wish you and your family a very happy and healthy new year! *Editor's Note: At press time, the decision had been announced that Alumni Weekend will be all virtual, with the hope of holding in-person reunions later in the year, if conditions improve.*

Since the awesome Stevens Alumni Reunion Bash that was being planned for this past June was postponed, it provided the opportunity to join forces with the 2001 class representatives to further amp up Alumni Weekend and increase the number of alumni that come back to celebrate with us! The Class of 2001 officers joined us to share in the planning and execution of celebrating our now-shared 20-year reunion celebration.

As of February 2020, we had over 100 alumni respond "yes," they were coming to the reunion via a LinkedIn event invitation. With this extra time, we ask your help in spreading the word so we have an even bigger turnout when we can finally get together in person. We are looking forward to finally having the Classes of 1996-2004 together to celebrate The Class of 2000-2001 20th Year Reunion Party. #2021TheYearToComeBack

If you haven't already, please join the Facebook group "Stevens 100th Alumni Weekend: Classes of 1996-2004" to receive updates and help spread the word. This will mark our class' 21st Year Reunion, as well as the 101st Alumni Weekend and 151st anniversary for Stevens!

We would love to hear from each of you so we can all begin to catch up on the last 21 years!

Here's some quick updates for you...

Ryan Stecher is an associate partner at Jaros, Baum & Bolles, where he's worked with a few other notable alumni and fellow Delts since 2001. He has worked on the electrical systems for some iconic New York City construction projects, including the National September 11 Memorial & Museum, the Whitney Museum of American Art, The Shed at Hudson Yards and many others. He is the chair of the American Council of Engineering Companies of New York Electrical Code committee and has his professional engineer license in seven states.

Ryan lives in Gillette, New Jersey, and has two children; Jack, 7, and Adam (who just turned 6). He still plays the drums and dabbles in a few other instruments.

Leonardo Palazzo has worked for Millennium Management, a hedge fund based in Manhattan, since 2016 where he currently leads a team responsible for the operations of their U.S. data centers. Prior to Millennium, he was employed by Goldman Sachs for 15 years as a vice president in their technology division, in several roles that focused on the firm's global network infrastructure.

He currently lives in Clifton, New Jersey, with Adriane, his wife of almost ten years, and his son

Alexander who is almost 6. In his spare time, he likes going for walks and occasionally likes smoking a good cigar while drinking a nice glass of Scotch.

Brian Towers is a partner at Jaros, Baum & Bolles in New York City. He has worked for the firm (since graduating from Stevens in 2000) in the electrical engineering division and has had the opportunity to work on projects including the World Trade Center and Hudson Yards. He was named New Principal of the Year 2018 by the American Council of Engineering Companies of New York.

Brian currently lives in Fair Haven, New Jersey. He married Erin Howard in 2011 and has three rambunctious children: Laurali, 7, Brian Jr., 6, and Abigail, 4. All three engineers in the making.

At Stevens, Brian was a member of Delta Tau Delta fraternity and played lacrosse; he still enjoys playing on the Two River Old Guys league in Monmouth County, New Jersey. He's run the New York City Marathon every year since 2007 and sees his Stevens friends to make new memories often, but not often enough. — [Marybeth Lynch](mailto:Marybeth.Lynch1@gmail.com), Marybeth.Lynch1@gmail.com; [Aimee Alonso](mailto:Aimee.Alonso@honeywell.com), Aimee.Alonso@honeywell.com



Louis Guzinski '05 passed away on Jan. 6, 2021. His wife Laura Palmer '05 — seen here with Louis at their 2005 graduation and more recently — has written a loving tribute to her extraordinary husband in the 2005 log.

'04 January, 8 2021 — Martin Downs M.S. '08, president of J. Fletcher Creamer & Son, Inc., Hackensack, New Jersey, has been named to *Engineering News Record* (ENR)'s 2021 National Top 20 Under 40. Part of ENR's annual Top Young Professionals program, Downs was honored among the best of the next generation of construction industry professionals across ten regions. ENR's Top 20 Under 40 were selected out of nearly 400 entries received last summer during the Top Young Professionals competition. These nominees represent all parts of the construction industry and came from all 50 states, Washington, D.C. and Puerto Rico. Panels of independent industry judges in each of the ten regions selected up to 20 winners to represent that region. The highest-scoring candidates from each of the ten regional contests were then scrutinized by a new panel of judges to select a national Top 20 Under 40 list that represented the best of young leaders from across the country. — *The Stevens Indicator*; alumni-log@stevens.edu

Virtual Alumni Weekend June 3-5, 2021

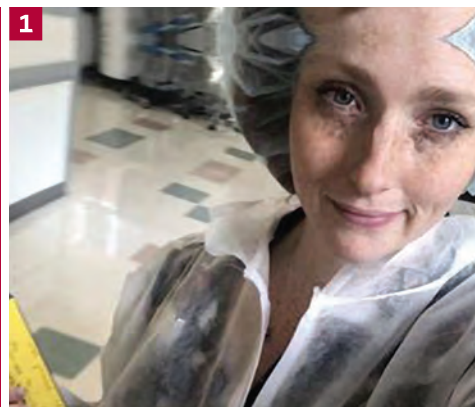
'05 Editor's Note: With deep sadness, *The Stevens Indicator* learned that Louis Guzinski '05 passed away on Jan. 6, 2021. His wife, Laura Palmer '05, has written this loving and moving tribute to her husband. Laura and her entire family have our deepest sympathy.

January 8, 2021 — Louis Guzinski passed away on January 6, 2021, due to an unexpected complication from longtime cancer. He earned a B.S. in computer science at Stevens, as did his longtime partner and wife, Laura Palmer (B.S./B.A.).

Louis was a brilliant software engineer and system administrator. Early in his career, he joined a VOIP startup, Vapps, that was later acquired by Citrix. This acquisition gave him the freedom to leave the corporate world and pursue his own projects. C++ services were his passion, and his wife looks forward to sifting through his code and open-sourcing it in the future. In addition to being a prolific programmer, he loved animals, gaming, books and playing musical instruments, especially strings. He and his wife traveled extensively, visiting Europe and Asia many times, and raised several rare-breed cats.

Louis survived over four years with his cancer, a nearly impossible feat achieved by his remark-

1 Last year, biomedical technician Lily Bruenjes '17 was awarded the Clinical Engineering Biomed of the Year at Robert Wood Johnson University Hospital, Somerset, NJ. At times during the pandemic, her department was down to half its staff, and Lily worked much overtime, to help maintain the hospital's critical equipment. **2** Janice Frontera '16 in front of the Rock of Cashel in County Tipperary, Ireland. **3** Jaimie (Mastrogiacono) Grapel '16 and Christian Grapel '14 wed on June 26, 2020.



able grit and perseverance. Early in treatment, he lost his ability to walk but, after intense rehab, was walking within two months and riding horses in Iceland just a year later. Both Louis and his wife contributed to advances in cancer treatment, providing genetics, tissue and data to multiple hospitals, giving advice to other patients and strangers, and participating in two successful clinical trials. His trials were hand-selected based on their potential for his particular cancer, a testament to the power of customized, patient-driven medicine. Though he will be greatly missed, Louis' data will save lives for decades to come.

Donations can be made to the Zoological Society of New Jersey, a cause close to his heart due to its tortoise and sea turtle support. — Laura — *Lisa Ditto DeMarco*, lisa.ditto@gmail.com

Virtual Alumni Weekend June 3-5, 2021

'16 January 8, 2021 — Janice Frontera graduated with a B.E. in chemical engineering and a M.E. in engineering management in 2018 and now

works at Merck & Co., Inc (known as MSD outside the U.S. and Canada). Frontera had the incredible opportunity to work abroad in Dublin, Ireland, as part of the manufacturing leadership development program, and then as a lead commissioning and qualification engineer for the media systems team part of the global engineering solutions tech center. She now lives in Holmdel, New Jersey, and is a senior specialist in immuno-oncology supply chain management at Merck.

Christian Grapel '14 and Jaimie (Mastrogiacono) Grapel met at Stevens in 2013 and were married seven years later, on June 26, 2020. It was a small, family-only ceremony on the beach in Ocean City, Maryland, and they hope to celebrate at a reception next September with the rest of their family and friends. Jaimie and Christian now live in New York with their two cats, and work at biotechnology and construction management companies, respectively. — *Kathleen Moyer Vanderburgh*; kathleen.e.moyer@gmail.com

Don't see your class log listed? Send an update to alumni-log@stevens.edu or call 201-216-5161.

A Final Thought

Spirit of the Stevens Family Still Lives on Castle Point

Several views of Castle Stevens, clockwise from left: the palatial estate circa 1889; its distinctive cantilevered “floating” staircase; young rascals escape the local cop down Castle Point, Castle Stevens in their wake. PHOTOS: ARCHIVES & SPECIAL COLLECTIONS, SAMUEL C. WILLIAMS LIBRARY



In June 2012, Stevens First Lady Hoveida Farvardin requested that I create a film about the Stevens family and their home on Castle Point, so I asked to brief the Stevens Alumni Association (SAA) about those plans and solicit input at their board meeting. The meeting was held in the boardroom on the 13th floor of the Howe Center, with the walls adorned by portraits of former Stevens board chairs. Knowing that my briefing would come at the end of the meeting, I settled into a comfortable chair against the wall next to Leo Collins '59. Something hit my right shoulder — the portrait of Willis Taylor Class of 1916, the board chair who helped to authorize demolition of Castle Stevens in 1959. Leo and I rehung the portrait, but I felt that I had gotten a message.

When my turn came to brief the SAA board, I explained that when our First Lady learned that I had been co-leader of student protests to “Save Castle Stevens,” including writing an award-winning four-part series for *The Stute* that covered the history of the Stevens family and The Castle, she asked me if I would be willing to take a lead role in writing and producing a film about this remarkable family and their home on Castle Point. She was surprised that an institution of higher learning had not tried to maintain and preserve so historic a structure. As I concluded my remarks, I turned toward Chairman Taylor’s portrait, pointed at him and said: “You tore down our founder’s home, and he’s still upset about it, but we’re going to make sure that its memory is preserved.”

For two years, I researched, wrote the script for and worked with Christopher Robinson, Stevens’ senior director of multimedia, on what became two 20-minute Stevens history films:

- “Stevens & Sons: America’s First Family of Engineers” premiered in January 2015 at the opening of the Hoboken Historical Museum’s special exhibit, “The Extraordinary Stevens Family: a New Jersey Legacy, 1776-1911” and
- Narrated by Richard Reeves ’60, “Tales from Castle Stevens” has Stevens family descendants describing life in the family’s former estate, and alumni and friends discussing their memories of The Castle. It premiered at the museum in June 2015 at my class’s 55th reunion reception.

Since then, the good work to preserve the history of the Stevens family — and of the university itself — has flourished. The Historic Preservation Committee, of which I am a member, is chaired by Hoveida. The committee has worked closely with the Archives & Special Collections staff at the Samuel C. Williams Library. Our joint effort has supported the great achievements of preserving and promoting the history of Stevens. Over the past several years, with the help of generous donors, we have accomplished much, from conserving a number of rare books and paintings to doing a complete digital inventory of all identified historic artifacts at Stevens to creating more programming, exhibitions and videos to promote Stevens’ history. We anticipate exciting projects in the future, including more digitization of university publications such as *The Stute*, *The Indicator* and *The Link*, restoration of additional paintings and furniture, and more educational videos, and we are in the early planning stages for a virtual tour of Castle Stevens.

I think that our founder must be pleased that his story, the story of his family home — and of the university itself — are being preserved to inspire future generations of the Stevens community.
— John Dalton ’60



To view these two films — and additional webinars — on Stevens history, visit library.stevens.edu/archives/virtual-stevens-history

The Historic Preservation Committee will launch its new website in May 2021 to connect the Stevens community and others with its current and future projects. Visit stevens.edu/hpc

We're reaching for the stars!

In the spirit of *per aspera ad astra*, alumni and friends are helping Stevens rise by supporting the University Center Complex.

Many alumni are finding reasons to give and spaces to name inside this historic project transforming Castle Point. Cindy Chin and Josh Levine are giving back to the campus where they fell in love and earned degrees that led to their success. They found an opportunity fit for them: a community lounge above the Diaco Family Skybridge connecting the Harries Residential and South Residential Towers. In a space bearing their names and offering stunning skyline views, Cindy and Josh strengthened their ties to Stevens and will have an impact on generations of students reaching together for the stars. Learn more at stevens.edu/Rise.



"We're excited to contribute to one of the most iconic spaces on campus and to see it transform

the student experience for years to come."

— CINDY CHIN '05 M.S. '05 and
JOSH LEVINE '05 M.S. '05



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