

# THE STEVENS INDICATOR

WINTER 2018 ✦ THE MAGAZINE OF THE STEVENS ALUMNI ASSOCIATION



## DIGITAL DEFENDERS

*STEVENS STRIKES BACK IN THE BATTLE FOR CYBERSECURITY*

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*Cover By: Simone Larson Design  
Campus Photo: Jeff Vock*

# PRESIDENT'S CORNER

## 'TURNAROUND UNIVERSITY': STEVENS AT MIDPOINT OF ITS TEN-YEAR STRATEGIC PLAN

In 2017, we reached the halfway mark in the implementation of the Stevens ten-year strategic plan, *The Future. Ours to Create.*, launched in 2012. This midpoint provided the opportunity to reflect on our progress to date, reevaluate the world in which we operate and set even more ambitious targets for our future.

From 2012 to 2017, Stevens made incredible progress in virtually all metrics that the university monitors, meeting or exceeding many of our midpoint goals. The milestones we have achieved in the last five years form the stepping stones to achieving our goal for the future: to *become a premier, student-centric, technological research university.*

In just the last few months, there has been a great deal of evidence of our progress. In September, in a detailed article, *Forbes* magazine called Stevens a “turnaround university” and named Stevens “one of the most desirable STEM colleges in the nation” in a feature on our cutting-edge quantitative finance program. In the fall 2017 “Best Colleges” edition of *U.S. News & World Report*, Stevens ranked No. 69, up 19 places since 2011, making Stevens the second-fastest-rising university among the top 100 in the nation. The most ambitious fundraising campaign in the history of Stevens, *The Power of Stevens*, has raised more than \$135 million toward a December 2018 goal of \$150 million, including a recently announced \$15 million gift to the endowment from the A. James and Alice B. Clark Foundation. This transformative gift will launch the A. James Clark Scholars Program, which will provide financial aid and specialized programming and support for academically talented students from underserved communities who are pursuing engineering, computer science and cybersecurity. Another new initiative, Stevens ACES (Access to Careers in Engineering



PHOTO: AARON HOUSTON

and Science), was recently launched with support of alumni leaders and corporate sponsors. Through this program, Stevens will partner with high schools to create opportunities for talented students from underserved communities to attend the Stevens Pre-College summer program tuition-free and receive special consideration for undergraduate scholarships and a host of other programs and services.

Other recent, major improvements to the Stevens campus are apparent, including IT upgrades and renovations to 50 classrooms, the opening of the North Building, the groundbreaking of the Gianforte Family Academic Center and the completion of the Babbio Garage

expansion that is scheduled for early 2018.

I invite you to visit [stevens.edu/about-stevens/strategic-plan/annual-reports/year-5-report](http://stevens.edu/about-stevens/strategic-plan/annual-reports/year-5-report) to view the Year 5 Strategic Plan Implementation Report, published in December 2017, for more details on Stevens' latest growth and progress metrics.

I wish you a productive and prosperous new year and look forward to all that we will achieve together in 2018.

Per aspera ad astra,

A handwritten signature in black ink, appearing to read "N. Farvardin". The signature is written in a cursive style.

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*Editor's Note: You may have noticed in the Fall 2017 issue our new "Alumni News" section, where we gather our alumni-related departments in a freshly designed package that also pays homage to our heritage. (Check out the fun archival photo that now opens the section.) You can also enjoy our alumni features throughout the magazine. Please share your thoughts about this new section at editor@alumni.stevens.edu. Thanks!*

## HAPPIER READER

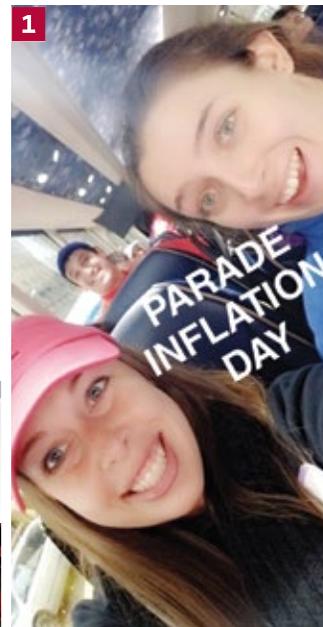
I just received the Fall '17 issue, and must tell you what a great job you all are doing with *The Indicator*. I remember the day when I looked at the magazine and shook my head! But this magazine is now something for alumni to be proud of. ❖ — Alan Donaldson '51

## A WELL-ROUNDED EDUCATION

Nice coverage of some of our alumni entrepreneurs. (See cover story, *Doing It Differently: Alumni Entrepreneurs Make Their Mark in the Fall 2017 issue.*) I think that a college should educate an individual so that when they come out of school, they have value. The mix of courses at Stevens has grown and does allow us, as individuals, to optimize our core. Not everyone is born to be a research scientist. I think that we have a responsibility to be the best we can. It's very important for Stevens to put this as a goal — to help the person approach his full potential so that he or she can be a contributing member of society. Stevens must challenge each of us to bring out the best in us — challenge us to optimize our potential as people, and to recognize that each person we meet has dignity and value. ❖ — Henry Bried '55

## SOCIAL MEDIA

Students took over Stevens social media channels to capture the experience of volunteering in the Macy's Thanksgiving Day Parade this past November. Stevens' participation in the parade dates back 32 years and alumni from around the country — Katie Casella '08 from San Francisco had the longest trek — return each year to help bring the balloons to life. This year, Robert Grieser '88 M. Eng. '93, who's been a volunteer with the parade from the beginning, was awarded the Macy's Thanksgiving Day Parade Volunteer of the Year Award. Continue to share your stories using #StevensAlumni. ❖



**1** Students take over Stevens social media channels for the Macy's Thanksgiving Day Parade. **2** A group of Stevens volunteers prepares to inflate Scrat from the movie "Ice Age."

## STEVENS NAMES NEW DEAN OF THE SCHOOL OF SYSTEMS AND ENTERPRISES

Yehia Massoud, Ph.D., an IEEE Fellow and renowned leader in integrated and complex systems, has been named the new dean of the School of Systems and Enterprises at the university following a comprehensive search.

Massoud had been the head of the Department of Electrical and Computer Engineering at Worcester Polytechnic Institute and assumed the Stevens leadership role on Jan. 1. During his five-year term at WPI, the ECE department saw considerable growth in research expenditures, research output, industrial partnerships, undergraduate and graduate student enrollments, unrestricted funds and gifts, and visibility and recognition. It also rose 25 positions in the *U.S. News & World Report* department rankings.

"I am very pleased that a scholar and academic administrator of Dr. Massoud's caliber will join the Stevens senior academic leadership," said Stevens Provost Christophe Pierre. "I am confident that his vision, experience, drive and commitment to excellence will enable him to propel SSE to higher levels of achievement and distinction as a vibrant hub for systems science and engineering. Dr. Massoud's leadership will be a vital part of our efforts to continue Stevens' steep upward trajectory as we further develop our stature as a premier institution."

Massoud's research interests reside in leveraging innovations in modeling, design and signal processing techniques to automate the design process of efficient computing and sensing systems targeting applications in health, computer systems and energy. He has successfully collaborated with numerous companies and government organizations on research projects.

Massoud is known for having developed the world's first realization of compressive sensing systems for signals, which is critical for the realization of highly complex biomedical implantable and wearable systems. He has published more than 220 papers in leading journals and conference proceedings, and attracted numerous grants and contracts from government and industry to support his research.



"It is a great honor to have been selected as the next dean of the School of Systems and Enterprises, one of the first schools in the world dedicated to systems science and engineering," Massoud said in a statement. "SSE is building on its strengths as a world leader in systems science and engineering while leveraging strong interdisciplinary collaborations to play a transformative role in facilitating far-reaching solutions to some of the most pressing challenges facing our society in fields such as data analytics, security, healthcare and transportation."

Massoud obtained his Ph.D. in electrical engineering and computer science from Massachusetts Institute of Technology in 1999. After that, he led a research and development group at Synopsys Inc., a leading electronic

design automation software company. In 2003, he joined Rice University, where he was granted tenure at the ECE and computer science departments in just four years. Additionally, he also served as the department head of electrical and computer engineering at the University of Alabama at Birmingham.

Massoud has received many honors for his research and his service to the field. In 2009, he was elected to the IEEE Nanotechnology Council. In 2007, he was a recipient of the Rising Star of Texas Medal. Additional honors include the NSF CAREER Award in 2005, the Design Automation Conference Fellowship in 2005, the Synopsys Special Recognition Engineering Award in 2000 and two IEEE Best Paper awards.

Massoud's contributions to his profession beyond his university work are extensive. He was named Distinguished Lecturer by the IEEE Circuit and Systems Society. He is the editor of *Mixed-Signal Letters—The Americas* and has served as an associate editor of *IEEE Transactions on Very Large Scale Integration Systems* and *IEEE Transactions on Circuits and Systems*. Dr. Massoud was also named to the IEEE Fellow Selection Committee in 2016 and 2017.

Massoud succeeds Dr. Anthony Barrese '70 M.Eng. '71 Ph.D. '78, a longtime Stevens professor who has led the school as interim dean and overseen its success for the past 12 months. ♦



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LORE-EL PHOTO: SANNIA WESOLOWSKA / WWW.PHOTOGRAPHERHEIDMANN.COM; BURCHARD AUDITORIUM AND NORTH BUILDING PHOTOS BY MICHAEL MARWORA



The campus revitalization has progressed steadily over the past year, as new construction and renovation projects have been completed — with major new projects on the horizon. Here's a sampling, starting below and clockwise: the new North Building; Burchard Auditorium, one of dozens of recent classroom renovations; and the renovated first floor of the Lore-El Center, with Phase 2 — construction of an outdoor event terrace — slated for completion this summer.



**TOP 10 FOR REGAN**

Track and cross country star Amy Regan '17 has been named a 2018 recipient of the prestigious Today's Top 10 award from the NCAA. The award, announced in December, recognizes former student-athletes for their successes on the field, in the classroom and in the community. Regan is a six-time NCAA individual national champion in cross country and track and field, a two-time U.S. Track & Field and Cross Country Coaches Association Cross Country National Athlete of the Year (2014 and 2016) and earned USTFCCA National Athlete of the Year honors in indoor and outdoor track in 2016. Regan joins men's soccer player Zach Carr '11 as the only Stevens student-athletes to win the award. ❖



**SAVE THE DATE**

Details? Please visit [connect.stevens.edu/step50th](http://connect.stevens.edu/step50th)

**STEP 50<sup>th</sup> Anniversary Celebration: Saturday, Sept. 22, 2018, Stevens Campus** A scene from STEP's 45th anniversary in 2013.

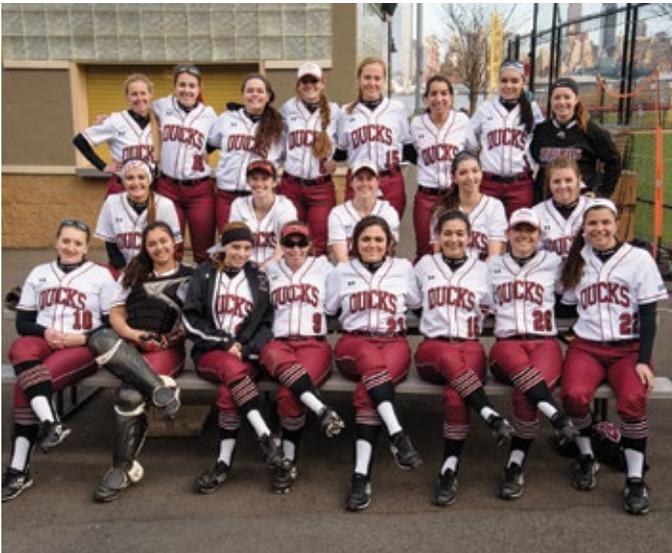
# GRIST FROM THE MILL

## ROBOFIRM MAKES INC. 5000

Robofirm, a New York City-based advertising and marketing firm founded by CEO Ryan Gellis '11 and COO Michael Caruso '12, was named to the 2017 Inc. 5000 list, as the country's 213<sup>th</sup>-fastest-growing company. The 30-employee company, founded in 2013, enjoyed \$2.6 million in revenue in 2016 and an astounding three-year growth of 2,025 percent, according to *Inc.* The firm, which also has locations in Minneapolis, Dallas and Orlando, Florida, provides e-commerce services for a variety of clients in the fashion and apparel, beauty, lifestyle and technology industries. ❖



Michael Caruso '12, left, and Ryan Gellis '11 at the Inc. 5000 awards ceremony last fall in Palm Springs, California.



## SOFTBALL BOASTS NO. 2 GPA IN NCAA

The Stevens softball team posted the second-highest GPA among all 412 NCAA Division III teams last season with a 3.675 GPA, according to the National Fastpitch Coaches Association rankings, which recognize the academic prowess of softball teams across seven membership divisions. "I know I speak on behalf of the Stevens athletic program and the entire institution in saying how proud we are of our softball student-athletes," said Director of Athletics Russell Rogers. "To finish so high in the Easton/NFCA All-Team Academic Award for all of NCAA Division III is simply an amazing accomplishment. This team continues to set the bar extremely high both on and off the field and truly exemplifies the essence of what intercollegiate athletics is about." ❖

## ONSTAGE CELEBRATES IRISH MUSIC

Keep the St. Patrick's Day festivities rolling with "An Evening of Irish Music," the next installment of OnStage at Stevens, on March 20 at 8 p.m. Players and friends of the New Jersey Symphony Orchestra will be performing traditional Irish music. For tickets, please visit [stevens.edu/onstage](http://stevens.edu/onstage). ❖

## CEREBROSENSE WINS PEOPLE'S CHOICE AWARD

The 2017 Collegiate Inventors Competition People's Choice Award went to the Stevens design team CerebroSense, as voted by the event's attendees. During the national competition, which was held in November, team members Maria V. De Abreu Pineda '17, Andrew Falcone '17, left, and David Ferrara '17 M.Eng. '17 were awarded \$1,000 for creating a device using ultrasonic sensing technology to provide safe, non-contact, real-time measurements during open-brain surgeries that can help reduce complications to the patient. The trio worked in collaboration with Dr. Glen Atlas '82, an anesthesiologist and adjunct clinical professor at Stevens, and biomedical engineering professor and program director Vikki Hazelwood Ph.D. '07. The team won first place in the Elevator Pitch Competition at last year's Stevens Innovation Expo. ❖



## LECTURE TO EXAMINE MACHINE LEARNING AND BRAINS

Dr. Tom M. Mitchell, E. Fredkin University Professor of the Machine Learning Department at the School of Computer Science, Carnegie Mellon University, is the next speaker in the President's Distinguished Lecture Series, set for Wednesday, Jan. 31 at 4 p.m. in DeBaun Auditorium. The talk will examine how the human brain uses neural activity to create and represent meanings of words, phrases, sentences and stories. It will also summarize what has been studied and learned through Carnegie Mellon's machine learning approach, where researchers in the machine learning department have been conducting experiments with fMRI (1 mm spatial resolution) and MEG (1 msec time resolution) brain imaging, and developing novel machine learning approaches to analyze this data. ❖



For more information or to view previous lectures, visit [stevens.edu/lecture](https://stevens.edu/lecture)



## PULLEN NAMED TO MAJOR CLIMATE CHANGE PANEL

Stevens professor Julie Pullen has been named to a major federal panel on climate change science alongside leading earth science experts from Yale, Princeton, Stanford, Columbia and the University of Michigan. The panel will review in depth the Fourth National Climate Assessment (NCA4): Impacts, a forthcoming second portion of the NCA4, a comprehensive climate-change report required by the federal Global Change Research Program since 1990. Previous assessments were published in 2000, 2009 and 2014. The first portion of the new NCA4 was released in November 2017. Pullen, an associate professor of ocean engineering who recently received a prestigious Fulbright scholarship, will assist the National Academies in peer-reviewing the report issued by a consortium of 13 federal agencies. ❖

## WOMEN IN ENGINEERING PANEL

The underrepresentation of women in the engineering industry was the subject of a panel discussion held at Stevens last September, featuring five Stevens alumnae: Lauren Bautista '05, Rita Gurevich '06, Mary Schurgot '06, Stephanie Senkevich '14 and Grace Stecher '03. The event was designed to provide students with an opportunity to hear from current professionals, get career advice and cultivate a supportive network as they prepare to enter the profession. The panelists shared their experiences and offered some sound career-search advice for everyone, from avoiding the use of the "top five questions to ask on an interview" via a Google search, but taking the time to come up with unique questions, to being open to opportunities that don't necessarily conform to an initially set career plan. To read more about the discussion, visit [stevens.edu/news/womenstempanel](https://stevens.edu/news/womenstempanel). ❖



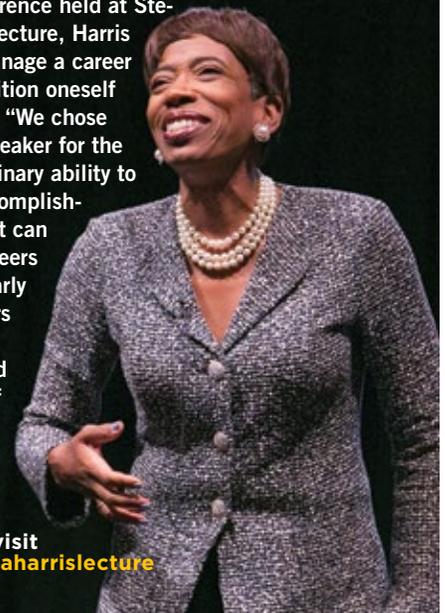
Students enjoyed a Q&A with the alumnae panel.



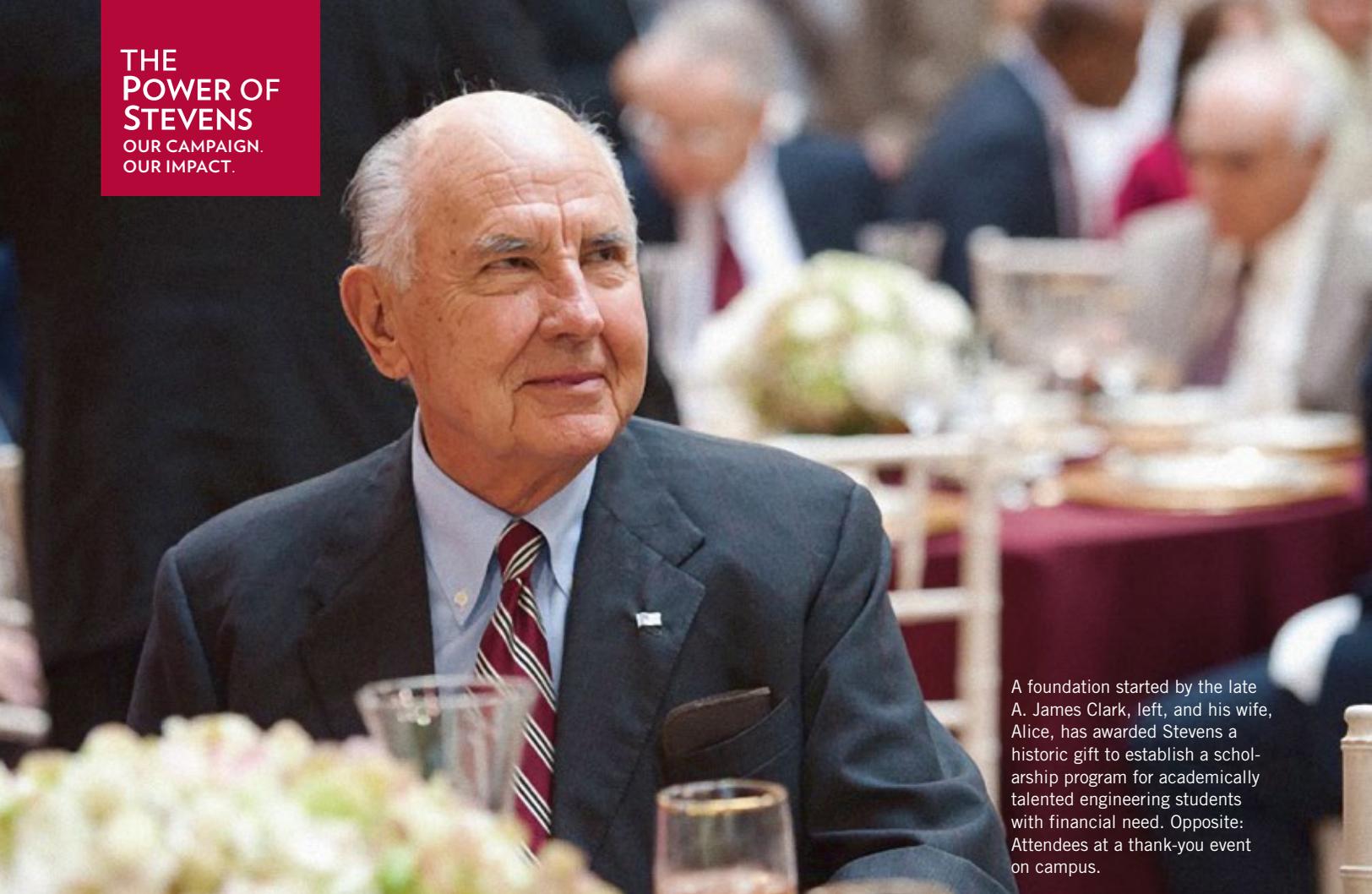
For the full story, visit [stevens.edu/news/womenstempanel](https://stevens.edu/news/womenstempanel)

## LEADERSHIP CONFERENCE SPEAKER OFFERS ADVICE ON MANAGING CAREERS

Carla Harris, vice chairman of wealth management and senior client advisor at Morgan Stanley, was the featured speaker in the Excellence Through Diversity Lecture Series at Stevens on Oct. 21, 2017. The lecture, sponsored by the Lore-El Center for Women's Leadership, Graduate Student Affairs and Diversity Education, along with generous support provided by Dianne (Smith) Szipszky '90 M.Eng. '91, was the marquee event of the LeadHERship Conference held at Stevens. Throughout the hour-long lecture, Harris gave a masterclass on how to manage a career with intent and purpose and position oneself to maximize success as a leader. "We chose Carla Harris to be our keynote speaker for the conference because her extraordinary ability to translate her experience and accomplishments into actionable advice that can help women advance in their careers resonates with students at the early stages of discovering their careers as well as seasoned professionals in senior-level positions," said Kristie Damell, associate dean of students and Title IX coordinator. ❖



To read the full story, visit [stevens.edu/news/carlaharrislecture](https://stevens.edu/news/carlaharrislecture)



A foundation started by the late A. James Clark, left, and his wife, Alice, has awarded Stevens a historic gift to establish a scholarship program for academically talented engineering students with financial need. Opposite: Attendees at a thank-you event on campus.

# The Clark Scholars are Coming to Stevens

RECORD GIFT FROM LONGTIME MENTOR, FRIEND ESTABLISHES SCHOLARSHIP PROGRAM

**T**hroughout his life, the late A. James Clark was a builder — of landmark skyscrapers, modern subways and majestic stadiums. And at top colleges across the country, his foundation is also building strong programs in engineering education, including now at Castle Point. In October, the A. James and Alice B. Clark Foundation awarded \$15 million — the largest single endowed gift in Stevens' history — to establish the empowering Clark Scholars Program.

## IN GOOD COMPANY

Beginning in Fall 2018, the Clark Scholars Program, an endowed scholarship program, will recruit academically talented engineering students with financial need, particularly from underrepresented minority or first-generation backgrounds. Every year, ten to 12 freshmen will join and receive four years of tuition support; opportunities for faculty mentoring, research, entrepreneurship and international study; and a “cultural passport” for artistic experiences.

The Clark Foundation has established similar programs at The George Washington University; Johns Hopkins University; the Universities of Maryland, Pennsylvania and Virginia; Vanderbilt University; and Virginia Tech.

“We are proud to establish the Clark Scholars Program at Stevens,” said Joe Del Guercio, president and CEO of the Clark Foundation. “Mr. Clark believed in the power of education and investing in hard-working students with a drive to succeed. The Clark Scholars Program helps to eliminate fi-

nancial barriers so that promising young students can receive the education and training to achieve their full potential and become tomorrow's engineering leaders."

The Clark Foundation decided to support Stevens because of the university's distinguished record of engineering education. But the endowment also recognizes Clark's friendship with Stevens President Nariman Farvardin, dating to President Farvardin's days as dean of the A. James Clark School of Engineering at the University of Maryland, Clark's alma mater, from 2000 to 2007. (President Farvardin was a faculty member with the university for 27 years and also served as senior vice president for academic affairs and provost, before joining Stevens in 2011.) In 2013, the Clark Foundation endowed a civil engineering chair at Stevens named for President Farvardin, who recently established a scholarship at Stevens to honor Clark.

## THE KING OF CONCRETE

Clark — dubbed the "King of Concrete" by *Forbes* — was born in 1927 and grew up in Bethesda, Maryland. His father sold life insurance and his mother was a homemaker, and Clark spent his summers earning ten cents an hour on his grandmother's farm. He earned a college scholarship to the University of Maryland, and after graduating in 1950 he worked for George Hyman Construction before forming Omni Construction in 1977 and merging the companies to create his namesake firm in 1995.

The company has since become one of the nation's largest general building contractors. Around its Washington, D.C. home base, Clark Construction built big league sporting venues FedEx Field, Nationals Park and the Verizon Center; two dozen of the city's subway stations; the International Spy Museum; Walter Reed National Military Medical Center; and the National Museum of African American History & Culture.

Spanning the country, Clark Construction's projects include Oriole Park at Camden Yards in Baltimore; dormitories for the Juilliard School at the Lincoln Center for the Performing Arts in New York; the central terminal at Hartsfield-Jackson Atlanta International Airport; the McCormick Place convention center in Chicago; Miller Park in Milwaukee; Petco Park in San Diego; the Los Angeles City Hall; and the Salesforce Tower in San Francisco.

Clark, who died in 2015, is survived by his wife, Alice, and their three children and ten grandchildren.

## BUILT TO LAST

The Clark Foundation gift comes at a momentous and pivotal time in Stevens' history. This past September, *U.S. News & World Report* awarded Stevens its highest-ever ranking, No. 69, on the magazine's prestigious annual list (up from 88 in 2011), and named the university among the top 25 "Most Innovative Schools" in the nation. (Read more about the university's recent honors on page 42.)

Jean Zu, dean of the School of Engineering & Science at Stevens, praises the Clark Scholars Program as a multi-disciplinary and hands-on learning experience. "The Clark Scholars Program creates a transformative opportunity for deserving students to receive invaluable practical engineering experience and leadership development at Stevens," she said.

With great excitement, the Clark gift ushers in the final year of *The Power of Stevens*, the most ambitious fundraising campaign in university history, with a goal of raising \$150 million between 2013 and December 2018.

❖ — Alan Skontra



## THE POWER OF FRIENDSHIP: NARIMAN FARVARDIN AND A. JAMES CLARK

President Nariman Farvardin remembers the first time he felt a connection to A. James Clark, during his early days as dean of the University of Maryland's Clark School of Engineering.

"At the conclusion of a presentation, we had a few moments of private time. Mr. Clark put his arm on my shoulder, looked me in the eye and said, 'I like you. I believe you are smart, hard-working and honest.' He then added, 'It does not matter how smart you are and how hard you work. If you don't have the right team around you, you can't achieve your goals. To build a first-rate school, you need a first-rate team.' After more than 17 years, I still try to live by those words."

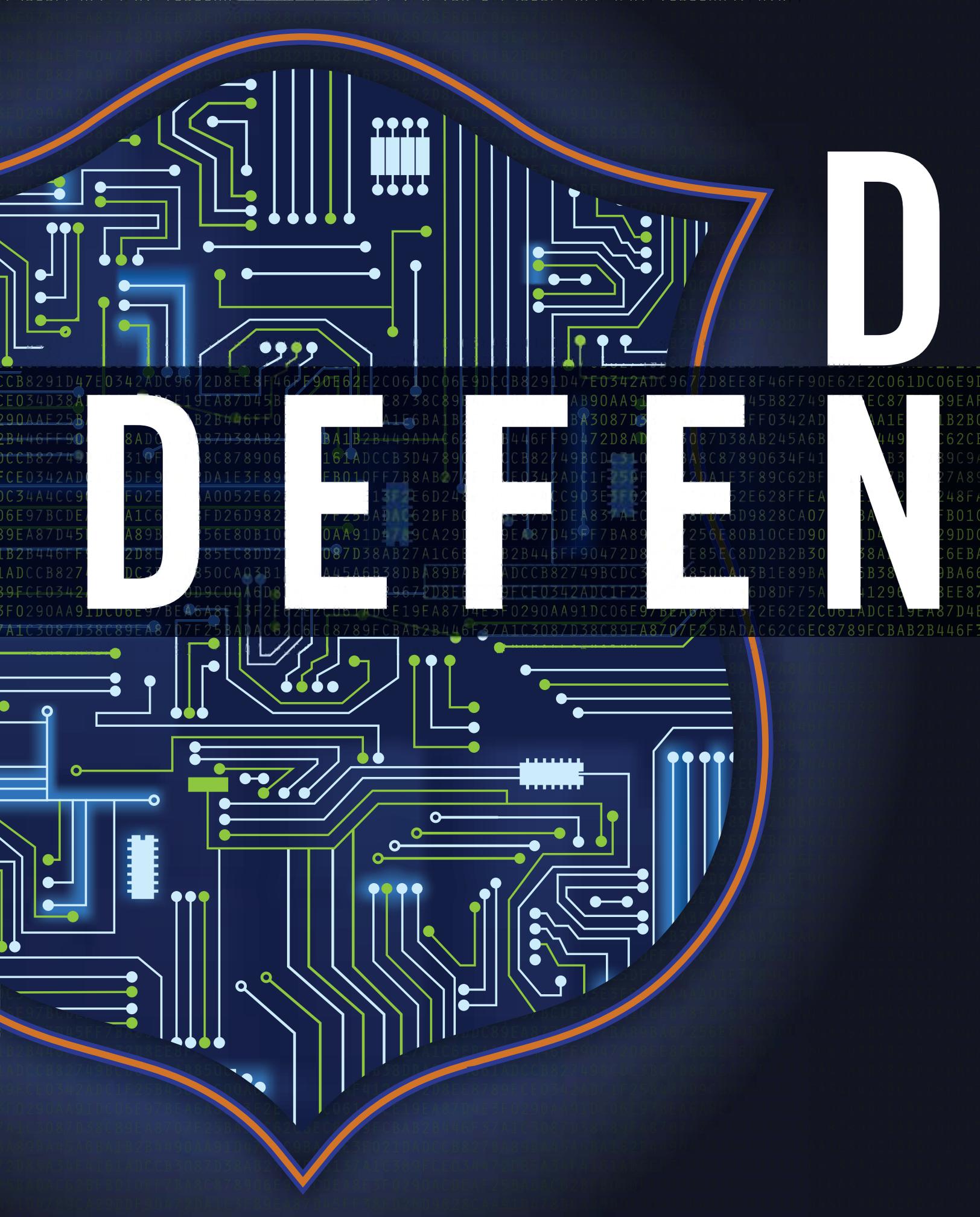
Their friendship developed, and even after President Farvardin left Maryland in 2011 to lead a first-rate team of faculty and staff at Stevens, he and Clark kept in touch. After Hurricane Sandy hit in 2012 and put Hoboken in the news, President Farvardin heard his phone ring. "In the midst of the crisis, Mr. and Mrs. Clark

called to check on me and my wife, and also inquired about the well-being of our students. I will never forget their kindness and humanity."

Beyond what the Clark Scholars Program will do for Stevens and its students, President Farvardin feels personally grateful for the generosity of his friend's philanthropic foundation.

"Jim Clark was a self-made man. He worked hard all his life, set high goals for himself and for the people he worked with, had an incredible drive and was simply determined to succeed. At the same time, he was a humble, unassuming and unbelievably kind person. He was a man of integrity, and his generosity had no boundaries. It is hard to find so many good qualities in one person.

"I was immensely honored to call Jim a friend, mentor and role model. I learned a lot from him — lessons that I apply every day. I plan to work hard to keep his legacy alive." ❖ — Alan Skontra



# DEFENSE

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# DIGITAL

# DETERS

***AS CYBERATTACKERS  
ESCALATE THEFTS OF OUR  
PERSONAL INFORMATION,  
STEVENS IS A NATIONAL  
LEADER IN FIGHTING BACK***

***BY PAUL KARR***



Professor Giuseppe Ateniese chairs Stevens' Department of Computer Science and is a noted cryptographer.

PHOTO: MELISSA BLEMUR PHOTOGRAPHY

The summer 2017 discovery of the theft of Social Security numbers, financial files and other personal data from the U.S. credit-reporting agency Equifax was as shocking as the attack was successful.

More than 145 million Social Security numbers, 10 million drivers' licenses, hundreds of thousands of credit card numbers, and an unknown number of tax records appear to have been stolen in at least two separate attacks. News of the thefts sparked widespread public concern, and prompted *The New York Times* to declare "Get Rid of Equifax."

"This happened because a technical weakness was discovered and patched fairly quickly by a software vendor, but

a company ignored the fix, inexcusably," explains Giuseppe Ateniese, the David and GG Farber Endowed Chair in Computer Science at Stevens and a noted cryptographer. "Yet it's also important to remember that this wasn't even close to the largest hack in history, not by far."

Ateniese is right. Major data breaches, hacks and identity thefts have become disturbingly common, with origins both at home and from abroad. Hundreds of thousands of pieces of malware (dangerous software) are broadcast *daily* worldwide, and some make it through defenses to strike prominent targets:

- Five Chinese military officials broke into the computer systems of U.S. Steel,

Westinghouse and other major American companies, successfully stealing secret blueprints for nuclear power plants, among other data.

- Nearly 40 million customer accounts of the software firm Adobe were hacked into in 2014; later that same year, 40 million Target customers' credit and debit card account numbers were captured by thieves in a separate attack.
- JPMorgan Chase, Fidelity, Dow Jones and other financial firms fell victim to a sophisticated cyberattack that captured information from more than 100 million clients. The attackers then used that data to manipulate stock market prices and create illegal internet gambling opera-

tions, among other crimes.

- Yahoo! reported that more than 3 billion accounts' credentials may have been stolen or compromised during a series of attacks dating back at least several years.
- And Russian government-affiliated actors hacked into communications from both major U.S. political parties during the 2016 presidential campaign, leading Google/Alphabet chairman Eric Schmidt to worry Russian hackers will bring "a lot more powerful tools" to future American elections.

Even the government's own most private databases have been hacked. Russian hackers accessed National Security Agency files in a 2015 breach that revealed U.S. secrets for cybermonitoring other nations. Unknown actors also slipped into the CIA's systems in early 2017, publicly revealing a number of previously unknown government surveillance projects and techniques. And a group of concerned computer experts demonstrated in a summer 2017 report how U.S. electronic voting machines are surprisingly easy to break into, compromising voters' personal data and raising questions about the integrity of previous elections.

"This is no longer just kids trying things out," explains Georgios Portokalidis, a Stevens professor of computer science and cybersecurity. "You now have big international syndicates spending a lot of money to actively hack systems and steal funds or information; sometimes national governments and intelligence agencies even do it."

As bad as this sounds, crooks are only getting smarter and faster: Cybercrimes are expected to double over just the next five years, according to the leading consultancy Cyberscurity Ventures.

Fortunately, government and industry are quietly stepping up efforts to detect and defend against threats both known and unknown — and Stevens has become a key player in this coordinated effort to fight back at digital thieves.

"We have developed a true 'powerhouse' here in cybersecurity, across the university," says computer science professor Susanne Wetzel, who created one of the nation's first undergraduate cybersecurity degree programs at Stevens in 2006 and continues to direct it (see *Fifteen Years of Leading the Way*, page 15).

## WEAK COMPUTER CODE, WEAK MANAGEMENT PROCESSES

There are essentially two ways cyberattackers work to steal your data, identity or cash.

One is by discovering and exploiting the inevitable bugs and vulnerabilities that creep into code, passwords, privacy firewalls and the patchwork of systems, software and applications that form modern IT — that's how the Equifax breach played out. The other is by fooling people into trusting messages, networks and websites that are not what they seem to be, tricking us to complacently give up passwords or allow Trojan-horse viruses onto our computers and systems.

***"This is no longer just kids trying things out. You now have big international syndicates spending a lot of money to actively hack systems and steal funds or information; sometimes national governments and intelligence agencies even do it." — GEORGIOS PORTOKALIDIS***

A successful attacker also takes advantage of breakdowns in the process by which an organization — particularly a complex organization holding an extraordinarily valuable treasure trove of money and/or personal information — reacts when an embarrassing crime is suddenly discovered at its doorstep, often months or even years after the fact.

Stevens researchers (see *New Research Takes Aim at Privacy, Passwords and More*, page 20) work on the weakest links in the security process to understand and build better counter-measures to vulnerabilities such as:

\* **Bugs, errors and other openings in computer code.** As society and technology become more complex, so do the programs running the devices that power our lives. A fighter jet's operating system might contain 20 million lines of computer code; your computer's operating system might contain 50 million lines; and your new car's on-board computers might need 150 million.

"While more complex code might seem like a positive thing, bringing added functionality and features, it *also* increases the

likelihood of bugs in a system — and the chances of that code being hacked," points out Portokalidis. "There are also frequently weaknesses in the ways software and systems work with each other. That's why it's very important to understand systems, not just software."

The upshot? Depending how a system has been designed or maintained, breaking into one small window can give criminals access to the entire house.

The Equifax hack happened in much that fashion: Crooks heard about a newly discovered bug in a website-building program popular with banks and related financial institutions. They rushed to attack

financial institutions, striking paydirt with Equifax, which had neglected to repair the secret entry in time.

The thieves then used that weakness to take digital control of Equifax's systems and quietly siphon out creditors' personal data for more than two months before being detected.

"You need a balance," explains cybersecurity graduate program director Antonio Nicolosi, "between code that is clear enough to explain what it is doing and code that has become too bloated, or else it becomes a weakness. Properly trained cybersecurity professionals can help inspect and correct that balance."

"You also try to make the attacker's job harder by designing and applying solutions that sustain partial compromises and that still work during a breach," adds professor Nikos Triandopolous, an expert on enterprise security. "If some servers go down during the attack, for instance, the game does not have to be over; we are learning to answer back, and raise the bar for the attacker in real time."

Stevens researchers, including Portokalidis, are also working on tools to



Undergraduates hard at work inside the university's high-tech CySec lab.

automatically detect and fix bloated programs and address other weaknesses.

\* **The human factor.** If code is vulnerable to hacks, people are uber-vulnerable. We've probably all clicked on an email link without thinking about it, replied too quickly to an email that *looked* sincere, tolerated a phone call from a customer service representative who *seemed* to be from our bank or phone company or email provider.

Specialized attacks have even evolved: "Phishing" attacks toss suspicious emails at all of us, while "whaling" and "spear-phishing" attacks are tailored to specific individuals, usually high-level gatekeepers, CEOs and the like.

"The best defense here is really the use of common sense and the creation of better public awareness about these attacks," notes Portokalidis. "Hackers look for the path of least resistance to the highest-impact, most valuable targets — and often the person is the easiest to trick."

\* **Weak passwords.** Rogue password-cracking programs are another threat, repeatedly trying combinations of common passwords (this is known as brute-force attacking) in efforts to break into systems and sensitive accounts. Since people tend to re-use or imitate their own passwords across applications, a thief can use one successful break to gain access to many accounts.

"And if it's anything shorter than 12 characters long, your password is probably *going* to be cracked sooner or later," points out Ateniese, who has investigated the problem extensively and created intelligent password-crackers to help us understand how to create better ones.

Newer, much more powerful artificial intelligence-powered attacks on passwords are likely in the very near future, he adds.

"We have already demonstrated here at Stevens that AI-style GAN (generative adversarial network) attacks on passwords

and data can be highly successful," notes Ateniese, whose team is also working on solutions to the threat.

\* **Poor organizational preparation or response.** Beyond the creation of better code and deeper insight into the process of creating attacks, Stevens experts also teach students to develop new models of organizational process that can cut down on response time when breaches do happen.

"The risk will never be brought down to zero; no fix can ever absolutely guarantee you won't be breached," explains business professor Paul Rohmeyer, who manages FinCyberSec, a financial cybersecurity conference held annually in late spring at Stevens. "But many of these high-impact hacks ultimately come down to operational failure after a threat is known, or after an attack. Something should've been done quickly in response, and yet wasn't."

*(Continued on page 17)*

# FIFTEEN YEARS OF LEADING THE WAY

*AS ONE OF THE NATION'S FIRST UNDERGRADUATE CYBERSECURITY PROGRAMS, STEVENS' REMAINS ONE OF ITS BEST AND MOST ROBUST*

In 2002, professor Susanne Wetzel was recruited to Stevens to create a leading-edge undergraduate program and center that would make the university a powerhouse in cybersecurity research and education.

"At that time, cybersecurity was just beginning to be in the public eye, to be taken seriously by industry and the government, and I was given wide latitude by Stevens leadership," recalls Wetzel, who remains director of the program as well as Stevens' CASSIA (Center for the Advancement of Secure Systems and Information Assurance) research center. "That's the power of our size and agility, which made all the difference. We were able to move quickly."

Within two short years, Stevens had received an important federal designation as a National Center of Academic Excellence in Information Assurance Education by the National Security Agency and the Department of Homeland Security. The university also won National Science Foundation grant support that would help enable the creation of a new bachelor's degree program in cybersecurity. That program, which began accepting students in 2006, was one of the nation's very first for undergraduates.

Over the next several years the university would receive two highly competitive NSF grants enabling, among other program-building projects, the outfitting of a high-tech CySec lab in the Babbio Center. It would also add a master's degree program in cybersecurity and secure millions of dollars in highly competitive funding to establish an on-campus CyberCorps program — a program that educates future cybersecurity professionals to confront cybersecurity challenges. (Participants receive up to three years of scholarship support in exchange for service commit-

ments in government cybersecurity positions.)

As Wetzel and her colleagues built up the university's cybersecurity program by launching CASSIA, hiring faculty and winning research grants, another important designation came their way in 2008, when Stevens was named a National Center of Academic Excellence in Cyber Defense Research (CAE-R), another NSA/DHS-

sponsored program.

And in 2012, Stevens was invited to become a founding participant in INSuRE (the Information Security Research and Education project), a prestigious multi-institutional collaborative NSA effort. Stevens and other CAE-R universities cooperate to engage students in solving unclassified applied cybersecurity research problems that are proposed by the NSA and other government and private organizations and laboratories.

Today, more than 20 faculty members across Stevens contribute research and educate the next generation of cybersecurity professionals, with a broad education in cybersecurity that integrates material in cryptography, privacy, information security, legal and ethical issues, mathematics, computer science, engineering and technology management.

"We emphasize the quality of our cybersecurity education over the quantity of diplomas given," summarizes Wetzel. "I think it's fair to say we are among the nation's top programs in the field now."

PHOTO: MICHAEL MARMORA



*Professor Susanne Wetzel created Stevens' undergraduate program in cybersecurity — one of the first undergraduate programs of its kind in the nation.*

# AM I SAFE?

*A FEW COMMON-SENSE HABITS CAN HELP MAKE YOU LESS SUSCEPTIBLE TO CYBERCRIME*

HOW SAFE IS ONLINE BANKING? SHOULD YOU CLICK ON THAT WEBSITE OR EMAIL? HOW STRONG IS YOUR PASSWORD? Stevens cybersecurity faculty counsel that a good dose of common sense — plus keeping some best practices in mind — can go a long way toward ensuring you don't wander into a dangerous cybertrap. Here's some advice from Stevens' experts in the field:



**"CHIP" CREDIT CARDS** are much more secure than "swipe" cards (that may have been how the Target data theft happened). If a vendor only offers the swipe, think twice.

Access and **READ YOUR CREDIT-CARD BILL AND BANK STATEMENTS**, top to bottom, every month as soon as they're issued. Tedious, sure — but you want to know if someone's been quietly sneaking cash out of your accounts.



*That **ONLINE PADLOCK** that appears on websites to indicate you have a secure connection? Yes, it can be trusted.*



Keep in mind that off-the-shelf **ANTIVIRUS PROGRAMS** won't necessarily work against brand new threats. The good news? The malware protection embedded in new operating systems is usually more than good enough.

**BE CAREFUL WHEN DOWNLOADING ATTACHMENTS OR CLICKING ON LINKS FROM UNKNOWN SENDERS.**



**UPDATE YOUR OPERATING SYSTEM** regularly. Those security patches

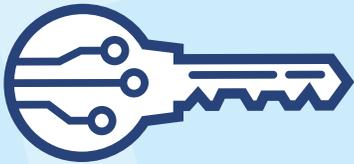
they send? They're there for a reason. While not foolproof, they represent good cybersecurity hygiene.



**JUNK YOUR OLD PASSWORD** — and the usual advice about how to make it unique. Instead, if you're allowed to do so, create a much longer password. The current best method is to string together four words in a row that you can reliably remember. (They don't need to make sense — in fact, ideally they shouldn't.)



**Don't "like" a story, photo or other item on a website you aren't totally familiar with. **FAKE "LIKE" BUTTONS** that look like the real thing can trick your computer into silently downloading bad programs.**



Set up **"TWO-FACTOR" AUTHENTICATION** for certain online accounts, such as your bank account. While annoying, this requirement of receiving a text-messaged code on your phone could save the day if a cybercrook suddenly cracks, guesses or buys your password.



Be careful when **CONNECTING TO WIRELESS NETWORKS** in public areas. "Google at Starbucks" is currently the official way to connect at that coffee shop, but just because a network says it belongs to your favorite coffee shop doesn't mean it does. Look before you leap, and ask the location's management.

(Continued from page 14)

"If you look at Equifax, for example, the gap between the realization of the vulnerability and the deployment of the fix apparently was months in duration. In today's environment, that is just unacceptable."

### **FIXES INCLUDE REGULATION, ENFORCEMENT, EDUCATION**

What's the ultimate solution to the rising wave of cybercrime?

A combination of stronger regulations, smarter-designed software tools and systems, and improved personnel training are some of the industry best practices that can help defend data, say Stevens cybersecurity experts.

Some of this will fall on government. Medical data collection, storage, security and sharing, in particular, could be more closely regulated by state and federal regulators, say Stevens faculty.

"This is the area that makes me, as a security professional, most uncomfortable," notes Nicolosi. "Access to our medical data can affect our lives tremendously, in ways we have perhaps not yet even thought about. It could be used to deny employment, credit or medicine — without our knowledge. This is an area where cybersecurity and policy should absolutely be looked at more closely."

The internet's architecture could also use a much-needed overhaul, adds Dave Farber '56 M.S. '61 Hon. D.Eng. '99, who should know: He helped design its original infrastructure in the 1970s.

"Security certificates, which guarantee that online entities are who they say they are, should be more tightly controlled," explains Farber. "It becomes an easy way for hackers to attack websites. How do we fix it? There are too many certificate authorities; the only way to gain control is to accredit all those authorities. So then you need to decide, who is going to accredit them?"

The domain-name system, created in the early 1980s to assign names to websites on what was then a vastly smaller internet, should be reformed as well, adds Farber.

Companies can do much more, too. An Equifax-sized data theft *should* have set off multiple internal alarms as it began occurring...but somehow didn't.

"Corporate security teams should look at their server traffic closely, so that large data downloads are quickly spotted, flagged and tracked," advises Nicolosi.

"Across industries, everyone can do a better job of paying attention to the fundamentals, such as performing regular maintenance," adds Rohmeyer, whose own research involves means of improved communication among the various corporate teams managing and using IT.

Stevens experts also note that systems can be designed to segregate the storage of certain critical information, and encrypt it, so that it is nearly impossible to access via a casual break-in and difficult to decode if it is accessed.

"Access is everything," says Nicolosi. "User controls and permissions must be taken very seriously."

And individuals can be more mindful, as well. Common-sense practices include creating stronger passwords; using two-factor authentication schemes; browsing safely in public wireless areas; keeping systems software current; logging out of shared computers; and becoming more aware of data-sharing permissions when entering a hospital, creating an online financial or social media account, or adding an application to a smartphone. (For more tips on good cyberhygiene, see *Am I Safe?* on the opposite page.)

It's clear cybercrimes will continue to expand in reach and evolve in scope.

Yet it's also clear that the next waves of attackers will be met with a more formidable collective effort than ever to bolster our national and personal digital defenses with strong counter-measures — and that Stevens will continue to help lead the way in training those on the front lines of that defense.

"Now that the battle has been joined, much will depend on equipping the current generation of students and professionals with strong computing fundamentals while also continuing to perform relevant research," concludes Ateniese. "I'm proud to say that Stevens, working closely with the government, industry partners and fellow universities, is a place where cybersecurity teaching and research is really thriving in this regard." ♦

# THINKING LIKE AN ATTACKER

## *STEVENS FACULTY USE ‘RED-TEAMING,’ REAL-WORLD HACKING EXERCISES AND OTHER NOVEL METHODS TO TEACH STUDENTS TO ANTICIPATE THE UNKNOWN*

Cyberthieves thrive on the knowledge that their next attack will probably hit a weakness nobody else has yet located. In a sense, they operate invisibly until their crimes or digital footprints are one day revealed or discovered — and by that time, it may be far too late. Even then, there’s always another piece of malware or approach being developed or planned by criminal networks or terrorists.

“The thing that is unique about our field is that it changes almost instantly,” explains Susanne Wetzel, creator and director of Stevens’ successful undergraduate cybersecurity program. “We can never know everything that will happen, or happen next. That is the nature of cybersecurity: It is about anticipation and intelligent reaction. So we train our students to think ahead, and this ability makes them especially well-suited to hit the ground running.”

To train students to fight this moving target of hacks, tools, methods and threats, the university takes a smart approach: It teaches those students to temporarily think like the adversary.

### **ROLE-PLAYING, HACKING IN A SANDBOX, THINKING ON THE FLY**

During the course of their education, Stevens cybersecurity students become proficient in various programming languages, from standard languages such as Python, Java and C++ to more specific flavors, like Scheme and Erlang.

They also learn to deploy software applications and tools, like Docker, VirtualBox and Vagrant, that create and wall off portable, “virtual” systems. Within those confines, they can practice hacks and defenses without damaging their own operating systems.

“We give them some of the tools, in an isolated, sandboxed environment, that hackers use so that they

can understand what they will be defending against,” explains cybersecurity master’s program director Antonio Nicolosi.

“We do projects where we ask students to think like the adversary. To take a simple hypothetical example, what happens if you overload a system’s password limit: Will that crash the system? Or will it keep running and let you try again?”

In addition, faculty impart security best practices and programming techniques. Those include the compartmentalization of key data and functions when coding, so that a break-in in



one area of a software or system doesn't immediately compromise all the data; reduction of the "threat surface" (slimming down the real estate crooks can scan for weaknesses by eliminating unnecessary features from programs); and "defensive coding" principles, such as the building in of multiple security checkpoints.

Case studies are another component of Stevens' experiential approach.

"We learn a great deal about real-world attacks at Stevens through the use of case studies," says Drew Malzahn, a Class of 2018 undergraduate and master's cybersecurity student and leader of an informal 60-member security club that meets Fridays on campus to dissect the latest hacks in the news.

Some courses even employ "red-teaming" role-playing exercises, splitting experienced students into multiple groups. A blue security team, working hard to design unbreakable protections, might be pitted against a second "red" team trying its best to outsmart those controls.

"We're trying to teach them that what we know today is outdated tomorrow, that they will constantly be faced with

***"We can never know everything that will happen, or happen next. That is the nature of cybersecurity: it is about anticipation and intelligent reaction. So we train our students to think ahead, and this ability makes them especially well-suited to hit the ground running."*** — SUSANNE WETZEL

the big unknown," notes Wetzel. "The vulnerability we find tomorrow is probably something we haven't seen before."

"In the Stevens cryptography courses I took, they taught us perspective, about dealing with attacks and the different ways they could hit," recalls Kristin Buckley M.S. '11, now an assistant vice president with Barclays who develops security reports and data for the firm's offices worldwide. "I felt, at times, that I was barely grasping the concepts — yet in the final exam, when we were asked to use everything we'd learned to come up with creative solutions to prevent a new attack, it all made sense.

"Instead of just repeating knowledge back, we were being asked to apply it to a new situation."

#### **CAPSTONE PROJECTS, INTERNSHIPS REFLECT REAL-WORLD CHALLENGES**

All undergraduate cybersecurity majors are now also required to participate in capstone projects addressing real-world, or highly similar, cybersecurity challenges during their senior years, giving a taste of what their future cyberdefense assignments in industry or government will look like.

Malzahn, for example, spent a summer as a digital-detective intern with the Department of Homeland Security; now he studies the data quietly collected and stored by connected devices, such as Amazon's Alexa personal-assistant device, for his capstone project. Julian Sexton '15 M.S. '16, a cybersecurity engineer with the research nonprofit MITRE, performed a Stevens internship with MITRE prior to graduation, studying potential cyberweaknesses in vehicles' diagnostic ports.

"What could an attacker do? That's something we need to teach our students, and that's what we're trying to accomplish with these capstone projects," says Wetzel. "Doing the cybersecurity capstone with a team, where even instructors don't know what the answer to that problem will be, allows students to explore the unknown and just do their best to take a step ahead every day.

"That's one of the most important traits we teach our students: to think outside of the box."



# NEW RESEARCH TAKES AIM AT PRIVACY, PASSWORDS AND MORE

Backing up its rigorous academic programming in the discipline, Stevens also performs leading-edge cybersecurity research across a surprising range of fields — projects that have investigated everything from figuring out how crooks can hack ATM passcodes to creating better passwords.

CASSIA (Center for the Advancement of Secure Systems and Information Assurance) director Susanne Wetzel's research in cryptography, number theory and wireless security, for example, informs multiple areas of privacy, biometrics and the underlying mathematical systems of cryptosystems. Wetzel holds patents in wireless security and the generation of cryptographic keys, and the NSF recently appointed her

a program director for NSF's prestigious Secure and Trustworthy Cyberspace (SaTC) program, a key one-year appointment during which she plans and directs federal cybersecurity research and funding priorities.

"It's interesting and amazing, because you help define the future and shape the field," she explains. "I am able to see a cross-section of what is happening in cybersecurity research daily, interacting with faculty from all over the country and the world."

Computer science department chair Giuseppe Ateniese is also extremely active in the field, working on a variety of security-related projects including investigations of password crackers and checkers, artificial intelligence-style cyberattacks, cloud security and bitcoin/block-chain privacy.

He is the recipient of an NSF CAREER Award, a Google Faculty Research Award and an IBM Faculty Award for his security work.

Other Stevens faculty and staff work on aspects of cybersecurity across disciplines, from business to systems engineering to mathematics to electrical engineering.

"We are realizing that prevention alone is not enough," notes Nikos Triandopoulos, a computer science professor and former industry researcher. "It has become an ongoing war or chess game with sophisticated attackers launching well-planned cyber campaigns against entire organizations."

*Professor Georgios Portokalidis and Samaneh Berenjian, a Ph.D. student in computer science, inside the Secure Systems Laboratory.*



PHOTO: BOB HANDELMAN

## Some examples:

### BETH AUSTIN-DEFARES

A new cybersecurity project involving professor Susanne Wetzel and Maritime Security Center Director of Education Beth Austin-DeFares, right, will focus on examining and bolstering homeland cybersecurity for the nation's port, harbor and maritime transport operations.



### PROFESSOR NIKOS TRIANDOPOLOUS

*Professor Nikos Triandopoulos, holder of nearly 50 patents related to enterprise security technologies, investigates secure distributed and outsourced computing (including social-network and cloud security), developing new solutions to help ensure the privacy and trustworthiness of computations performed amongst untrustworthy users or on malicious servers.*

### PROFESSOR PAUL ROHMEYER M.S. '97, Ph.D. '06

*Professor Paul Rohmeyer's research involves the creation of models to enable better planning and crisis decision-making — as well as better communication among the various IT, security and business operations teams in an organization.*

### PROFESSOR DAVID NAUMANN

Professor David Naumann performs research on program analysis and automated verification for the assurance of authentication and information-flow security.

### PROFESSOR GEORGIOS PORTOKALIDIS

*Professor Georgios Portokalidis performs a number of projects that may help prevent rogue software attacks, including an effort to systematically “debloat” huge programs such as those that operate defense systems.*



### PROFESSOR DOMINIC DUGGAN

Professor Dominic Duggan investigates aspects of secure information-sharing in distributed collaborative applications, applying techniques from the semantics and implementation of programming languages.

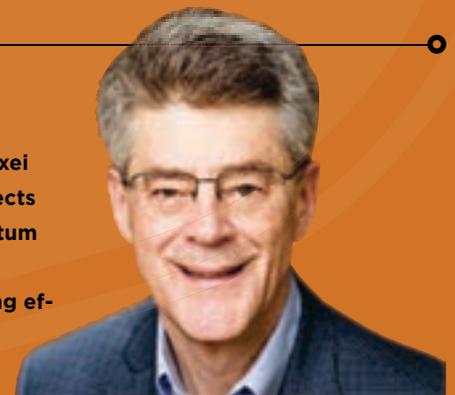


### PROFESSOR ANTONIO NICOLOSI

Professor Antonio Nicolosi conducts research in cryptography and its applications to resolving issues of security and privacy in distributed systems, including fast authentication mechanisms for data forwarding in future internet architectures and a novel approach to non-commutative cryptography.

### PROFESSOR ROBERT GILMAN

Professors Robert Gilman, right, and Alexei Miasnikov investigate mathematical aspects of cryptography, in particular post-quantum cryptography: algorithms that would be secure against future quantum-computing efforts to crack them.



# And the Honorees Are...

## MEET THE PRESTIGIOUS ALUMNI OF THE 2018 STEVENS AWARDS GALA

**T**hey're having an impact on Castle Point and Wall Street and as far away as Japan and even outer space. The illustrious honorees of the 2018 Stevens Awards Gala succeed as executives, entrepreneurs, educators and researchers. They have also served their alma mater as trustees, alumni leaders and philanthropists. Save the date for April 14 at The Plaza Hotel in Manhattan, and get ready to dine, dance and celebrate the best of Stevens!

### Distinguished Alumni Award for Business and Finance Dianne K. McKeever '01

Dianne McKeever is co-founder and chief investment officer of Ides Capital Management LP, an investment advisor that constructively engages with companies to drive long-term shareholder value. Prior to Ides, McKeever was a partner at Barington Capital and has served as a public company director at Sielox Inc. and LQ Corporation. She was recently named to *Fortune's* 2016 "40 Under 40" list, *Crain's New York Business's* 2017 "40 Under 40" list, and *Marie Claire's* "New Guard" 2017.



### Young Alumni Award Marques K. Brownlee '15

Marques Brownlee has turned viral videos and ad revenue into a lucrative business. His tech-themed YouTube channel, MK-BHD, influences 5.5 million subscribers. Every week, Brownlee reviews the latest smartphones, hi-def televisions, video games, drones, electric cars and other gadgets, with total views approaching one billion. He has been featured in *TIME* magazine and on NBC News, appeared as a guest on Neil deGrasse Tyson's science podcast and won a video contest judged by Elon Musk.



### Honor Award Sean Hanlon '80

Sean Hanlon is founder and CEO of Hanlon Investment Management, an innovative asset management, services and fin-tech company, providing a wealth/managed accounts platform for clients, advisors, family offices, broker/dealers, banks and institutions. He has served as a Stevens trustee since 2010 and is chairman of the advisory board for the Hanlon Financial Systems Center on campus. Sean and Cathy Hanlon, through their foundation, support many worthy causes, and are very proud supporters of Stevens and its mission.



### Lifetime Service Award Marty Valerio '68

As a senior project manager in the construction industry, Marty Valerio worked on diverse projects in healthcare, pharmaceutical, research and data collection facilities in metro New York, Boston and North Carolina. He is a former member of the American Society of Civil Engineers and the National Society of Professional Engineers. He has served his alma mater for decades as a trustee, president of the Stevens Alumni Association, Class of 1968 fund captain and adjunct instructor of construction management. Valerio received the Stevens Alumni Award in 2008.



### **Distinguished Alumni Award for Engineering** **Kenneth Venner '84**

As CIO of SpaceX, Kenneth Venner oversees the information and technology systems for the world's premier private space technology company. In his previous position as CIO of Broadcom, Venner enabled the company to grow from \$400 million to \$7.6 billion; from 1,000 employees to 10,000; and from five locations to 80 globally, while acquiring and integrating 50 other companies. He was also a vice president and CIO with Rockwell Electronic Commerce and worked at the famed Bell Labs. His father is Edward Venner '56, and his sister is the late Susan Munday '85.



### **Distinguished Alumni Award for Arts and Humanities** **John Newton '71**

John Newton founded Soundmirror, a music recording and production company, in 1972. His early association with Soundstream placed him in the vanguard of digital recording technology. He headed the recording department at Philips Records and helped develop the Super Audio CD. Newton has recorded orchestras, operas, choruses and chamber musicians worldwide. Soundmirror projects have garnered more than 100 Grammy nominations — ten of those in 2018 — with Newton having won eight Grammys and one Emmy himself. He is a member of the National Association of Recording Arts and Sciences and Audio Engineering Society.



### **Distinguished Alumni Award for Science and Technology** **Vikki Hazelwood Ph.D. '07**

An academic with extensive medical industry experience, Vikki Hazelwood has researched and developed innovation for minimally invasive evaluations, early disease detection, assistive technologies for the disabled, drug delivery and surgical techniques for orthopedics and interventional cardiology. A professor in Stevens' Department of Biomedical Engineering, Hazelwood founded the Lab for Translation Research at Stevens and SPOC, a medical device company. Hazelwood is a fellow of the National Academy of Inventors, and in 2010 she received the Advancement of Invention Award from the New Jersey Inventors Hall of Fame.



### **Outstanding Contribution Award** **Frank J. Semcer '65**

Frank Semcer is chairman and CEO of Micro Stamping Corporation (MICRO), a \$100 million global conglomerate producing parts primarily for the medical device industry. A longtime trustee, he has served Stevens in many capacities and received the 1985 Harold Fee '20 Alumni Achievement Award and the 2010 Stevens Award for Innovation and Leadership. Semcer is a member of the Society of Manufacturing Engineers and the American Society of Quality Control and is a past director of New Jersey Manufacturers Insurance. His son is Brian Semcer M.S. '00.



### **Charles V. Schaefer, Jr. Entrepreneur Award** **Stephen T. Boswell C.E. '89 Ph.D. '91 Hon. D.Eng. '13**

Stephen Boswell is president and CEO of Boswell Engineering, a regional, multi-discipline civil, structural, underwater, construction and environmental engineering and environmental science firm that has engineered major infrastructure projects at the municipal, county, state and federal levels. Boswell is a licensed professional engineer in 28 states and a fellow in both the ASCE and ACEC. He is also co-founder and lead independent director of NASDAQ-listed ConnectOne Bank. Boswell serves as a trustee at Stevens, Hackensack Meridian Health and the Buehler Challenger and Science Center.



### **International Achievement Award** **Sachin N. Shah '89 M.S. '93**

Sachin Shah is chairman, president and CEO of MetLife Japan. He led the integration of Alico into MetLife, a \$15.5 billion deal. Previously, he was an executive with Bankers Trust and an engineer with Schindler Elevator and Allied Signal. He has been recognized in *Who's Who in Management Professionals* and in *Who's Who of National Business Leaders*. Shah serves on the board of the U.S.-Japan Business Council and as president of the American Chamber of Commerce in Japan. His brother is Saamil Shah '91.



*Interested in attending the 2018 Stevens Awards Gala?  
Reserve your seats by March 30 at [stevens.edu/awardsgala](http://stevens.edu/awardsgala).*



# REFUGE FROM THE STORMS

## STEVENS ALUMNI ANSWER CALL TO HELP NEIGHBORS, COMMUNITIES BATTERED BY 2017 HURRICANES

Juan Jaime '05 sounds weary this Saturday morning, when he answers his cell phone from his apartment in San Juan, Puerto Rico. It's Oct. 28 — more than a month after Hurricane Maria — and he has no electricity or running water, no hot food, no air conditioning in the sweltering heat, like the vast majority of the island.

He's tired mostly because he worked until midnight the night before, responding to a hardware failure at work — a major pharmaceutical manufacturer and its largest supply chain site on the island, which employs 2,500 and is among the company's most important manufacturing sites in the world. Here, in Gurabo, they make medicines to treat HIV, schizophrenia, diabetes and other autoimmune diseases — life-sustaining drugs that are absolutely critical to their patients. As technology site leader, Jaime's job is to keep the technology up and running, to allow the flow of these critical medicines to patients across the globe.

Work is the one place that has electricity, water, hot food and hot showers; "paradise," he and his colleagues call it. Among the most stable of the company's sites on the island, this huge campus is still running on generators, which require frequent maintenance and can periodically break down. So he's working mostly 12-hour days to ensure that all the technology needs of his site are met and goes home

to catch a few hours sleep.

Less than one year into his current stint for the company in San Juan, Jaime was off the island when Maria struck but cancelled his vacation and returned shortly after the storm.

Working side by side with colleagues on an important mission to bring much-needed medicines to patients, "for me, it was something that I didn't want to miss," he says.

Through the hurricanes of late summer and early fall 2017 — particularly Hurricanes Maria and Harvey — Stevens alumni responded to



Juan Jaime '05, kneeling far right, dresses as Captain America and his colleagues as other super heroes, to boost morale during their trying living and working conditions in Puerto Rico. Opposite: A residence in Jaime's San Juan neighborhood. PHOTOS: JUAN JAIME '05



Hurricane Maria damage in the barrio of Cantera in Santurce, a district of San Juan.  
PHOTO: VICKY VELASCO '04

the storms with determination, skill and compassion, whether they were helping their neighbors and colleagues recover or working with their companies to address critical community needs.

#### **FAMILY, DUTY LEAD TO PUERTO RICO**

The strong ties of family inspired Victoria Velasco '04 to head to Puerto Rico in early November, as the island still reeled from the devastation of Hurricane Maria. Her uncle, P. Nicolás Navarro, a Roman Catholic priest, serves Parroquia Maria Auxiliadora (Mary Help of Christians Parish), in the barrio of Cantera in Santurce, a district of San Juan. He, and those in his community, do so today without reliable electricity or drinking water — and with parishioners and neighbors with many needs.

“They’re so positive. They say: ‘We are alive, we are blessed.’”  
—Vicky Velasco '04

Like so many watching the news reports coming from the island, Velasco didn't know the best way to help. She just needed to do something, so she and her cousin packed as many suitcases as they could take onboard — filled with diapers, baby food, medicine, mosquito nets and “lots and lots of batteries,” all donated by family and friends — and went to Puerto Rico to see the needs firsthand. And to listen.

“We had to see it for ourselves,” Velasco says. “It’s hard to know what to give and how to help. This gave a clearer picture.”

Their four days on the island were eye-opening. One of the few places in the area running on generators and providing power for most

of the day, the church, school and oratory have served as a true community center, a lifeline to many local people who have literally lost everything, Velasco said. Meeting students from a neighboring Salesian elementary school, Colegio Maria Auxiliadora, Velasco listened to them as they shared their stories, and those of their parents who have no jobs to return to because the hurricane badly damaged the power grid and shuttered their work sites.

In November, garbage and debris still lined the streets, complete darkness invaded the island early, due to the lack of electricity, and there’s a blue tint to everything, cast by the blue plastic tarps covering thousands of rooftops, she says.

But the people whom Velasco met are startlingly resilient.

“They’re so positive,” she says. “They say: ‘We are alive, we are blessed.’” Velasco wants to help Puerto Rico in the long term and plans to return. Her uncle — “He hasn’t wavered at all,” Velasco says — and the people she’s met on the island inspire her.

“We’re called to this idea of solidarity,” she says. “If you have and are able to give, if you have the opportunity to help, that’s what you’re supposed to do.”

#### **A HELPING HAND FROM CASTLE POINT**

While Velasco traveled to Puerto Rico to offer help, Mike Aragon, a former member of the Class of 2007 and a Lambda Upsilon Lambda fraternity alumnus, worked within his community to deliver some of life’s basics to people and pets in need.

In early September, Aragon and other members of 3POINTS4X4, a nonprofit social club for Jeep and off-road vehicle enthusiasts, packed their vehicles with donations of clothing, food, water and pet food from all over northern New Jersey — 33,000 pounds in all. One of Aragon’s stops: The Lambda Upsilon Lambda house at Stevens, where he and his fellow brothers loaded 300 pounds of clothing gathered through the fraternity’s clothing drive for Harvey victims. (See Castle Point Cares, page 29.) In the end, he and a volunteer caravan of 60 Jeeps headed to Ringwood, New Jersey, where they filled a 52-foot tractor trailer bound for Houston.

Aragon later helped support another Jeep club that was sending supplies to Puerto Rico, making pick-ups with his Jeep Wrangler all over Jersey City.

“I was just trying to help out,” he says. He has family — uncles, aunts, cousins — in Puerto Rico, who served as inspiration.

#### **ON CALL FROM KATRINA TO HARVEY**

Meanwhile, some veteran volunteers of Hurricane Katrina found themselves again helping others 12 years later in their hometown of Houston.

Back in 2005, Kathleen and Patrick Whelan '72 reported for duty at the George R. Brown Convention Center to help New Orleanians who had evacuated for the safety of Houston. But this past fall, Hurricane Harvey visited Houston. Luckily, the Whelans live on the 9th floor of a high-rise downtown and never lost power or water. This time, Patrick

could not join Kathleen in her volunteer efforts due to health reasons, but encouraged her to return to the convention center, where the Red Cross set up an evacuation center and shelter.

For six days, she registered evacuees, set up cots, served coffee, sorted clothes — and was struck by the differences between Katrina and Harvey.

Those arriving by bus to Houston after escaping Katrina seemed to be in a state of shock, she recalls, often still searching for lost family members. But the Harvey victims had literally just escaped the storm. She heard stories of parents walking through waist-deep water, carrying their children, being rescued by a motor boat, then getting picked up by a dump truck and delivered to a school bus that dropped them at the convention center door. They arrived soaked, shivering and scared.

The people kept coming, she recalls, until the center designed to fit 5,000 had to find room for 10,000 people.

“This storm was the greater equalizer,” Kathleen said. “It didn’t matter socio-economically what your background was — everyone suffered.”

People helped each other. Kathleen’s voice catches with emotion as she recalls the two mothers with children sorting through clothing. One of the mothers found a coat that she really needed for herself, but when she saw the younger mother, wet and cold, with her baby, she wrapped the coat around her.

“I saw many, many acts of kindness, of patience,” Kathleen says. “Through the whole experience, I was truly astounded by the capacity of human nature to be compassionate, kind and resourceful.”

### ENGINEERING SKILLS AND EMPATHY

Some alumni saw their engineering and project management skills — and their sense of compassion — called to duty in the wake of Harvey.

Diana Leon ’15, a maintenance engineer with Dow Chemical Company in Beaumont, Texas, volunteered with the company’s recovery and demo team to help displaced employees who had suffered major damage to their homes. Indeed, the Dow Texas Strong Recovery Team — which worked on 53 homes in all — required volunteers like Leon to rely on not only their technical skills but also their great capacity for empathy.

Leon worked on two homes — salvaging any possessions she could, removing sheet rock, tearing up carpeting, working quickly in a time battle against mold. The more difficult moments were seeing the stricken faces of the homeowners who had lost so much. One woman lost her longtime family home with its beautiful gardens and paintings; so much had to be thrown away.

“She was very overwhelmed. It was a matter of being sensitive and being patient,” Leon says. The devastated looks on people’s faces as she went through their ruined personal possessions stays with her. But she also recalls the resilience, especially of her co-worker who lost his home and was living in a camper, but was so grateful for the team’s help.

“He was thanking everyone and was always smiling and in good spirits and I thought: ‘How do you do that?’”

Leon was one of the lucky ones, as her first-floor apartment in nearby Pearland never flooded or lost power or water.

“I’ve been so blessed, and I didn’t have to be displaced. It’s more of a determined need to help out when you have been very fortunate,” she says. After Harvey, she continued to support her affected neighbors by

donating food, cleaning supplies and clothing to those in need, and attending local fundraisers.

Dow Chemical Company, ExxonMobil and other company sites all suffered damage in the aftermath of Hurricane Harvey. In Beaumont, Texas, home to a 362,300-barrel-per-day ExxonMobil refinery, the storm swelled the banks of the Neches River, flooding portions of the refinery as well as the city’s pumping center and knocking out its entire water supply.

ExxonMobil was contacted by the city and agreed to help restore the water supply, and utilities engineer Jaslyn George ’14 was on the job. The plan: construct a temporary water piping system and install temporary pumps on a floating barge to get the water flowing again.

George got to work — evaluating hydraulics calculations on the new system to confirm the water ran correctly; and informing on the type of new piping, valves and pumps needed. Crews worked around the clock to build eight 600-foot-long pipelines and install eight pumps. Water began flowing into the reservoir within 24 hours, and within a week, water was restored for the city’s 120,000 residents.

Using her background in hydraulics in such a practical way that helped people was greatly fulfilling, she says.



Vicky Velasco '04 and her cousin visited their uncle in Puerto Rico in November, delivering food and supplies for the many residents in need.



**1** A home badly damaged by Hurricane Maria, in Cantera, Puerto Rico. PHOTO: VICKY VELASCO '04  
**2** Damage from Juan Jaime's neighborhood, San Juan. PHOTO: JUAN JAIME '05. **3** Jaslyn George '14 of ExxonMobil worked to help the City of Beaumont, Texas, restore its water supply that was knocked out by Hurricane Harvey.



“It was really doing something for the community that I live in,” she said.

### LIFE AFTER MARIA

Back in Puerto Rico, in October 2017, everyday life was difficult for most people. But Juan Jaime tried to look toward the future.

His hope is to do more soon to help people in his community who are hurting, he says. Right now, the almost round-the-clock demands of work give him very little down time.

And while it's difficult not to have simple things that most people take for granted — like access to running water and electricity — he knows he's lucky to have a roof over his head and access to his work site, where he can enjoy these necessities.

In his oceanfront neighborhood of Condamo, near Old San Juan, life before the hurricane was lively, he says, with hotels and restaurants, people playing music and enjoying the beach in his front yard and the small lagoon in his backyard.

As of late October, he could see people living in tents along the lagoon, where they wash their clothes. Only about 10 percent of his neighborhood was back to normal, as the streets were still lined with downed trees and powerlines and debris. A trip to the grocery store can mean a three- or four-hour wait for food.

There's a sense that aid has come too slowly to the island, he says. “There's been a lot of frustration.” In late October, he was hoping the recent announcement of increased government aid would bring some relief.

“Despite everything, the people of Puerto Rico are incredibly resilient and inspiringly positive,” Jaime writes. “Popular tourist spots look like ghost towns, but you will still find spots with locals sharing and smiling.

“In our new reality, everyone is willing to help others in whatever way we can.”

As for himself, Jaime plans to stay in Puerto Rico until he sees real change coming to his company and to his community.

“I want to stay in this role long enough to make a difference,” he says. ❖ — *Beth Kissinger*

# Castle Point Cares

## STUDENTS AID IN HURRICANE RECOVERY

Hurricanes Maria, Harvey and Irma may have devastated communities more than 1,000 miles from Castle Point, but Stevens students saw the need and answered the urgent call to help those who have lost so much.

Several student organizations collected money, held clothing drives and sponsored a variety of fundraisers — many with a creative twist — to help people in Puerto Rico and the Caribbean and Houston. Students raised thousands of dollars for hurricane relief and showed these communities that they were not forgotten.

“What it comes down to is that people on campus care,” says James Sweeney, a member of the Class of 2019 and service chair of Order of Omega, the Greek leadership honor society. “They want to make contributions as they see people in the world suffering.”

Sweeney himself baked 500 chocolate chip cookies and sold them for hurricane relief at a “Meet the Greeks” recruiting event that raised \$250 for Hurricane Harvey relief. Then Order of Omega held “Pie the Greeks” at Stevens’ Harvest Moon Festival, where students got a chance to toss pies at Sweeney, other Greek leaders, and even a few Stevens administrators. That event netted \$350, which went to Save the Children, for Hurricane Maria relief.

For some students, the hurricanes really hit home, adding extra urgency to the cause.

One Lambda Upsilon Lambda fraternity brother, Johnathan Aviles, Class of 2020, has family in Houston, and his cousin reached out, asking for clothing donations. So the LUL brothers swung into action, with Jose Angeles, Class of 2019, creating the hashtag #StevensforHouston to solicit donations. Within three days, they had collected 300 pounds of clothing.

LUL brother Mike Aragon, through 3Points4X4, a Jeep and off-road vehicles



1 The brothers of Lambda Upsilon Lambda collected 300 pounds of clothing for those affected by Hurricane Harvey in Houston. 2 Order of Omega sponsored “Pie the Greeks” and raised \$350 for Hurricane Maria relief.

enthusiasts club, picked up the clothing donations, which were later trucked to Houston to communities in need. (See *main story*.)

Aragon, with some help from the LUL brothers, also raised \$5,000 for Southern Paws, a New Jersey-based animal rescue organization that works with animal rescue groups in the southern United States to secure homes and adoptions for animals abandoned during Hurricane Harvey.

Angeles had a more personal connection to the hurricanes than most Stevens students. He was born in Puerto Rico, and his father and many members of his mother’s family live there. He endured several stressful days when he couldn’t reach his family but was later able to confirm that all were safe.

Some students have expressed outrage that Puerto Rico seems to have received less support and attention toward its recovery, Sweeney says, so several high-profile fundraisers hoped to make an impact.

Phi Sigma Sigma sorority and Phi Sigma Kappa fraternity turned the Phi Sigma Kappa house into “Phi Sig SKare House” this Halloween — and raised more than



\$700 toward Hurricane Maria relief. Proceeds from the haunted house went to Mercy Corps, the Portland, Oregon-based organization that works to alleviate suffering, poverty and oppression around the world.

“Hoboken remembers Hurricane Sandy and all of the help that came to us when we needed it,” says Marianna Fleming, Class of 2019 and Phi Sigma Sigma president. “We wanted to give that back to a community that we knew was struggling.”

Another high-profile event for hurricane relief in the Caribbean — Storm the Castle. The Multicultural Greek Council’s annual Step, Stroll and Salute Show saw fancy dance moves, rhythms and chants fill the Babbio Atrium, with LUL, Omega Phi Beta sorority and others performing. The evening raised more than \$150 toward Global Giving, the global crowdfunding community. ♦ — *Beth Kissinger*



# DOING MORE

## ALUMNA MAKES TIME FOR POSITIVE IMPACT

When the movie *Hidden Figures* was released in 2016, it brought attention to the largely unknown story of a team of black women mathematicians who worked at NASA during the early years of the U.S. space program. And when the Dallas/Ft. Worth chapter of the National Society of Black Engineers (NSBE) decided to honor its own selection of “Hidden Figures of Dallas: Top Women of Color in STEM,” it brought recognition to Stevens’ Leanne Metcalfe ’00.

While she was thrilled to be honored, Metcalfe is quick to put the true value of the award into perspective.

“The event around the award was actually a scholarship gala fundraiser, so knowing that I was part of something that raises money to help students go to college means a lot,” she says, continuing to explain that she and the other nine honorees still meet and give back to NSBE. “Getting the award has changed things in that we can do more, helping people get their education and increasing interest in STEM. We were just at a NSBE walk for education, knocking on doors and encouraging students to stay in school. You can only do so much as a single person, but now I’m [part of] a group of ten, and we can do so much more.”

“Doing more” is a way of life for Metcalfe, who agreed to chat on the phone after initially suggesting that she may fly to New York City for the interview. In her current position as senior director of consultative data science at Blue Cross and Blue Shield in Illinois, Montana, New Mexico, Oklahoma and Texas, Metcalfe is focused on research and is currently working on a device to better identify breast cancer masses. This issue is one of particular significance to her as she underwent a lumpectomy to remove two lumps — one benign, one pre-cancerous/Stage 0 — during her biomedical engineering Ph.D. program at Georgia Tech (where she also received her master’s in industrial engineering). That experience, and the loss of a valued mentor and friend to breast cancer, make her research all the more meaningful.

These issues, she says, are also why it's so important for women to be in the STEM fields and why she encourages women to get into engineering and stay in it. She offers the example of a meeting she attended discussing research collaboration and which cancer to start the research on.

"The numbers show that about 25 percent of cancers are breast cancer but the question we were asked is whether or not the technology would save money. As one of two women in the room, it seemed an odd question to us," she says. "Can you put a price tag on a technology that reduces surgeries and could potentially save lives? With the range of repeat surgeries being 2 to 72 percent, shouldn't we help the docs with the higher repeat rate so that more women have access to quality care?"

"We're trying to increase the certainty that we will remove the [breast] cancer and they're putting a dollar sign on that, and the men in the room didn't get that. We need diversity of thought in engineering: rich and poor, white and black, male and female. Each brings its own perspective and leads to great inventions that can uplift each community."

Metcalf's own path to engineering started at an early age. Growing up in Jamaica, she says, kids were forced to make things — "We had to make our toys!" — which laid the foundation of a STEM education. She followed her brother, Lee Metcalfe '98 M.S. '06, who studied computer engineering, to Stevens, but took a different route by studying electrical engineering. While Metcalfe loved being near her brother and getting involved in many of the stereotypical college experiences that Stevens offers, it was the gesture of a particular professor that left the most lasting impression.

"I used to sit in the back of Dr. Delong Liu's class and one day, he asked me why I always sat in the back. The next time I came to class, there was a seat in the front that he had reserved for me, and that was the beginning of my investment in electrical engineering," she says. "Here's a professor who saw what I needed and gave that to me, with the simple act of saving me a seat; he just took notice of a student he

wanted to see succeed, and not every educator does that."

After completing her Ph.D., a series of positions led to a call from BCBS, which made her an offer she couldn't refuse.

"We do really cool work researching new, wonderful things that can really make a difference in people's lives," she says. "I go to work like 'Woooooo! What do we get to do today? How can we look at things in a unique way to improve society?' Every day, I get to save the world...OK, not the whole world, but this little tiny piece of it."

Another beneficial aspect of her current position is that it allows — even encourages — her to make time for extracurriculars. Earlier this year, Metcalfe decided, after a little nudging from a friend, to enter a bodybuilding competition. She says the workouts kept her sane, because even when things were stressful at work, "I knew I'd have to go work out because I was going to be on stage in almost no clothing, so I HAD TO DO IT!"

"It's the same with volunteering. By giving your mind a break from work, you become much more efficient in what you get paid to do. By having these different experiences and talking with different people, you may see things differently or consider a different perspective, and that may just be the missing piece of the puzzle."

It's her recognition of and gratitude for the opportunities afforded to her that continue to motivate Metcalfe to spread her optimism.

"I've been through the experiences that come with being of a different race and I could respond in one of two ways: become aggressive or become an agent of change. I can't change the world by being angry, but I can get up and get out and if it helps change one person, maybe they inspire one more person," she says. "I want people to see me doing something positive and living the life I want and want for everyone else. People have done so much for me that I have to give back; I have to find the time because others found the time for me. It's how each of us can effect change with one small step." ❖ — *Rebecca Markley*

"EVERY DAY, I GET TO SAVE THE WORLD...OK, NOT THE WHOLE WORLD, BUT THIS LITTLE TINY PIECE OF IT."



# A Greater Reach

## STEVENS ACES WILL EXPAND ACCESS TO STEM EDUCATION, CAREERS FOR MINORITY STUDENTS

**T**his past fall, Stevens announced the launch of a major initiative called Stevens ACES, which will provide enhanced opportunities, including financial support, for underserved students and those from underrepresented minority groups to pursue STEM (science, technology, engineering and mathematics) and technology-infused degrees and careers.

Bolstered by a strategic commitment of the university's leadership, as well as financial commitments from the university and its partners, ACES (Accessing Careers in Engineering and Science) will foster mutually beneficial and lasting relationships with high school partners in local underserved communities who are committed to increasing opportunities for talented students with significant financial need, particularly underrepresented minority students.

Rep. Donald M. Payne Jr., D-N.J., joined Stevens President Nariman Farvardin to announce the new program during the ACES launch event held at Stevens on Oct. 30, 2017.

"There is a growing gap between the jobs that are in high demand and the people who have skills to fill them. Over the next ten years, 80 percent of careers will require a deep understanding of STEM skills. But more than half of students today struggle to meet basic math requirements," Payne said.

"The ACES initiative will pave the way for minorities and underserved populations

to enter STEM-related fields. These young people will shape the way science, technology, engineering — and yes, math — affect our daily lives. And they will be positioned to create a future in which technology reflects the strength of America's diverse communities."

"The ACES program is an important initiative that reflects Stevens' institutional mission to equalize and expand access to a Stevens education while also addressing the acute need for building a workforce with a technology orientation, especially given the important and growing role of technology in human progress and economic development," Farvardin said.

"ACES would not be successful without the enthusiastic participation and support of our alumni and partners, among them, many companies and foundations."

The program, which includes both pre-college and undergraduate components, builds upon and leverages the capabilities of a number of Stevens resources and constituencies, including faculty, students, alumni, academic and student life support services, pre-college programs, admissions and financial aid, and teacher/guidance counselor programs. Stevens will provide full-tuition scholarships to its summer Pre-College Programs to eligible ACES students from partner high schools, enabling them to experience college life and inspiring them to pursue a STEM-focused college education.

Students who choose to pursue under-

graduate studies at Stevens will become part of a learning community that will benefit from well-established resources which have propelled previous students from disadvantaged and underrepresented groups to exceptional outcomes. A key resource for students is the Stevens Technical Enrichment Program (STEP), which offers a wide range of services and programs to support the students' success.

ACES partner schools will also benefit from a number of dedicated services, including scholarship support for pre-college programs, mentorship programs and teacher and guidance counselor professional development, among others. The Stevens Center for Innovation in Engineering and Science Education (CIESE) will provide ACES partners with STEM professional development programs for high school science and mathematics teachers as well as programming for school counselors.

The program's 2017-18 launch will include New Jersey public, charter and Catholic schools in Newark, Paterson, Hoboken and Jersey City, as well as Brooklyn, New York, with a high percentage of underserved and underrepresented minority students. The goal is to enroll at least 20 ACES students in the summer 2018 Pre-College Programs.

Students nominated for Stevens ACES must meet certain criteria and complete an online application. Twenty first-year undergraduate students will be selected to participate in ACES at Stevens for fall 2018.

## Alumni support propels ACES

Stevens ACES has prompted much excitement among its alumni supporters, among them Nate Davis '76.

Davis, executive chairman of K12, a leading provider of online curriculum and support services, was instrumental in the creation of ACES with university leadership, along with the late Art Harper '78, who passed away last September. (*Harper's obituary appears on page 65.*) President Farvardin reached out to Harper — who was the founder and general partner of GenNx360 Capital Partners — and Davis to discuss what Stevens could do to further serve underrepresented minority students, and Stevens ACES later began to take shape, Davis said. Friends during and after their time at Stevens, Harper and Davis have been deeply passionate supporters of and advocates for STEM education, particularly for minority and underserved students.

"Art passed away but before he did, he knew his dream of his alma mater making a difference in the lives of young, underrepresented minorities was becoming a reality," Davis said.

During the ACES launch event, Davis spoke candidly of his wide-ranging career, which has included work in media, telecommunications, software and education technology; his travel to six continents; and his path to a fulfilling life — much of it stemming from his time at Stevens and his engineering education, he said.

"It changed my life, it changed my family... it gave us opportunities we never would have had," Davis said.

"My dream became — How do I get others to do this?"

Throughout his career, Davis recalled often being the only minority in the room, and

he fears that the problem is getting worse. He spoke of the projected growth of well-paying STEM jobs over the next decade and despaired of the fact that while Latinos and African-Americans represent together the largest population growth in the country, they make up only a small percentage of STEM graduates of engineering and science schools. He worries about a greater educational and income gap.

"We have to do something about this," he told the audience. With ACES, "We think that it will change lives, the same way [an engineering education] changed my life."

Davis, who is a member of the President's Leadership Council at Stevens, applauded the Stevens ACES effort and urged the educators in the audience to fully support their students in exploring STEM careers. ACES will be a success whether these students eventually attend Stevens or another STEM-focused school and get access to an education that will bring them and their families a better life, he said.

"I will work with you tirelessly to make this real," Davis said.

Davis concurs with Congressman Payne's assessment of the "skills gap" in America. That's why, in addition to supporting Stevens ACES, Davis spearheaded the introduction of Career Technical Education programs at K12's partner high schools and in districts around the nation, through the company's Fuel Education subsidiary. These programs, serving students from diverse backgrounds, deliver STEM courses and career pathways in today's most in-demand job markets, including healthcare, business administration and information technology.

"America needs students to be better prepared for the workplace of tomorrow. Programs like the Stevens' STEP and ACES programs, and K12's CTE programs, will help

students close the educational and income gap," Davis said.

Meanwhile, Shahid Malik, president of PSEG Energy Resources and Trade, praised Stevens for its dedication to enhancing opportunities for underserved students. "PSEG is proud of its long-standing partnership with Stevens," Malik said. "ACES is an outstanding program, and we look forward to seeing it produce great results."

"This is about changing lives. If you look around the room, you see all the folks who will be impacted by this. This is what makes programs like this just exceptional."

In an interview after the launch event, an enthusiastic Davis reflected on the uniqueness of Stevens ACES. Here, there's a focus on STEM in a program already located in an urban area, home to a large minority population, he said. Students can take an easy PATH train ride from Jersey City or Newark to the Stevens campus.

"We are in the community; we are part of the community," Davis said emphatically. "That's what makes it so special."

Stevens is looking to make a greater impact, and Davis said that the program will eventually share its best practices so that other similar programs across the country can be launched.

"We want to touch more. When you do something well, you want to document it and show the world," he said.

"The real goal here is to reach as many students as we can and change lives." ♦ — *Katherine Cutler and Beth Kissinger*



To learn more about the Stevens ACES program, please visit [stevens.edu/news/stevensaces](https://stevens.edu/news/stevensaces)

1 Attending the Stevens ACES launch last fall, from left, were Stevens President Nariman Farvardin; Rep. Donald M. Payne Jr., D-N.J.; Nate Davis '76, executive chairman of K12; Armando Rosa, Stevens Class of 2018; and Shahid Malik, president of PSEG Energy Resources and Trade. 2 Clarelle DeGraffe '84, left, with Gabrielle Mathelier, Class of 2018. 3 From left, Christina Trinidad and Grant Fowler, both Class of 2021; Ruben Martins, Class of 2019; and Harrison Fowler '66 M.S. '70 M.S. '83. PHOTOS: JEFF VOCK

RESEARCH

FALLOUT PROTECTION  
WHAT TO KNOW AND DO ABOUT NUCLEAR ATTACK

Collaborating on a multi-disciplinary project to address nuclear terrorism preparedness and education, from left, are Stevens professors Kristyn Karl, Julie Pullen and Alex Wellerstein.

PHOTO: JEFF VOCK

REINVENTING  
CIVIL  
DEFENSE

PROJECT WILL RESEARCH, EDUCATE ABOUT NUCLEAR TERRORISM



joint program funded by Carnegie Corporation of New York and the John D. and Catherine T. MacArthur Foundation has awarded a trio of Stevens faculty researchers \$500,000 to broadly assess and redefine U.S. civil defense, studying how to communicate the latest science and technology to educate the public about the threat of nuclear terrorism — as well as measures to take if a nuclear event occurs.

College of Arts and Letters professors Alex Wellerstein and Kristyn Karl and School of Engineering and Science professor Julie Pullen will rely upon an unusually diverse advisory board of defense, academic, technology and artistic professionals to seed sub-projects, including ideas for public education campaigns, virtual reality (VR) simulations, games, apps and other communications. They will also host two conferences devoted to analyzing the results of those projects.

### REVIVING CONCERN WHILE DEVELOPING BETTER SCIENCE AND MESSAGES

The inspiration for the new project, say the researchers, was a growing sense that current generations may not fully appreciate the threat of nuclear terrorism in places such as New York City.

While the United States maintained active federal civil defense programs during much of the Cold War, those were discontinued in the face of growing nuclear arsenals. Today, however, interest is reviving in those planning approaches as improvised nuclear devices achieve a higher threat profile.

“The United States hasn’t been doing atmospheric tests since the 1960s, and that’s a good thing, but for many reasons the issue of civil defense has literally gone underground, dropped off the landscape,” notes Wellerstein. “We’ll be exploring how to reintroduce this concept, in ways more dramatic than a simple web page, lecture or news story.”

**The inspiration for the new project was a growing sense that current generations may not fully appreciate the threat of nuclear terrorism.**

Improved science and increasingly detailed simulations allow for new forms of communication, which can be effective in delineating best practices when preparing and planning for nuclear scenarios.

“A modern-day nuclear incident would very likely take place on the ground level, on a very local scale,” explains Pullen, an earth scientist and expert on nuclear and radiological effects. “And the latest science shows it is survivable — if the public knows to shelter in place.”

Unfortunately, notes Wellerstein, few Americans today possess either a clear sense of the threat of nuclear terrorism or modern guidance about what to do in the awful case it occurs.

“Early civil defense plans were created in earnest, and some of them were sound, but some of them were unworkable,” he notes.

“We’ve moved from 10-kiloton-scale weapons — air blasts with high mortality such as those that happened in Hiroshima, where everything was leveled, where homes made of wood all burned to the ground — to planning for urban-scale, improvised nuclear detonations today,” adds

Pullen. “These are many orders of magnitude smaller in scale than the Cold War arsenal. In this scenario, outside the blast zone, many would be shielded by the protective factor of urban buildings, and this is important to understand and convey.”

In fact, the best current simulations indicate that sheltering in place for several hours to several days in an interior room while radioactive fallout dissipates is by far a preferable strategy — despite the human urge to flee the city, rush to schools or congregate in community shelters.

“This may be a place where non-government organizations or academics can play a stronger role,” says Wellerstein.

“We will evaluate the effectiveness of different messengers and the new media tools explicitly. Who is trustworthy and credible? What resonates most? Of course you are going to know a little more about the risk shortly after encountering these messages, but will you remember it, and for how long?” asks Karl. “That’s also part of what we are going to address.”

### UMBRELLA PROJECT WILL ALSO FUND ADDITIONAL, SMALLER PROJECTS

The Stevens project will involve both a few flagship projects as well as the solicitation, approval and seed funding of a host of smaller sub-projects aimed at dispensing good information accurately and memorably. Major components of the project include:

- ▶ VR simulations developed in Stevens’ SCENE (Sensory Computation, Experimental Narrative Environments) Lab by professors Christopher Manzione, Seth Cluett and Nicholas O’Brien, three experts in audio, VR, graphics and game development.
- ▶ Detailed nuclear-winter simulators led by Pullen and Wellerstein, building upon Wellerstein’s popular NUKEMAP online casualty-visualization tool.
- ▶ Extensive surveys of Americans’ emotional responses to nuclear terrorism and examination of the behavioral changes that result from new nuclear risk communications, performed by Karl. That research will include analyses of newly developed communication tools and focus particularly on millennial-generation subjects, leveraging a pool of Stevens students.

“We are very excited about the diversity of this project,” concludes Pullen. “We have early, mid-career and even emeritus faculty — such as School of Business emeritus professor Edward Friedman, a key contributor — represented on our project. We have advisory board members spanning these career phases and diversity represented in other important dimensions as well. This project represents a convergence of tools and approaches.”

A kickoff workshop in spring 2018, held at Brookhaven National Laboratory on Long Island, New York, will assemble practitioners from the emergency response community and other interested stakeholders to develop lessons from past practices and understand current approaches, note the Stevens researchers. One year later, a second workshop will be convened on the Stevens campus to experience and evaluate newly developed communications tools.

❖ — Paul Karr

# THE ART OF GIVING

## LARGEST GIFT IN COLLEGE OF ARTS AND LETTERS HISTORY HONORS FORMER ARTIST-IN-RESIDENCE

**W**hen Nancy Miller decided to make a donation in memory of her late husband, Paul Franklin Miller Jr., she knew exactly where to give.

“Paul had such an affection for Stevens,” she says. “He was there for a number of years and even when he left, it still had such a big place in his heart. It was just the most logical choice, physically and emotionally, for me.”

Now, with her \$100,000 gift to the Visual Arts & Technology program in the College of Arts and Letters (CAL) to create the Paul Franklin Miller Jr. Endowed Memorial Fund, Nancy has ensured that Paul’s passion for arts education will live on at Stevens for many years to come. Her gift is also a watershed moment, as it is the largest single dedicated gift in CAL’s history.

For more than 25 years, from 1969 to 1995, Paul served as Stevens’ artist-in-residence, teaching drawing, painting and sculpture. He was eager to expose engineering and science students to the art world and illustrate how much the arts

could benefit them, personally and professionally. From each of his students, he required and mentored a technology-driven work of art based on their field of study and, in doing so, helped create the first art and technology curriculum.

“Paul was the first artist on the hill, and I remember helping him cobble together a curriculum because arts and technology was so new. He wanted the program to grow and he so much wanted there to be crossover projects, interdisciplinary projects among the different departments,” Nancy says. “And he wanted Stevens to

**“PAUL WAS THE FIRST ARTIST ON THE HILL, AND I REMEMBER HELPING HIM COBBLE TOGETHER A CURRICULUM BECAUSE ARTS AND TECHNOLOGY WAS SO NEW.”**

be recognized beyond the Tri-State area.”

Even after Paul left Stevens, he never really left it behind, Nancy says, and that played a major role in her decision to make a gift to CAL.

“We were snow birds but the minute when we got back up North — that first day back — we’d do chores and by the afternoon, he’d walk up the hill to see the professors and what was going on,” she remembers. “Stevens was so important to him, I thought it would be a good place to honor his legacy.”

She knew her inclination was well-placed after meeting with CAL Dean Kelland Thomas and assistant professor and program director for Visual Arts & Technology Jeffrey Thompson. Nancy says that she herself is inspired by their concern as to what is best for students.

As of early November, it was still undecided how the gift would be used, but Nancy was planning to meet with Thomas and Thompson to discuss some ideas that Paul would have

Probably the most famous of Paul Franklin Miller’s work on campus is *Tyron*, a bird-like sculpture built in the late ’70s. Impressed with a small statue that Miller had made, a group of civil engineering students spent five months recreating the statue to 12 times its original size with a half-inch concrete skin. The finished product impressed the administration so much that university President Kenneth C. Rogers had it mounted on a six-foot pedestal on Palmer Lawn. *Tyron* has since been relocated to Sam’s Place on the first floor of the S.C. Williams Library.

Opposite page: Miller works with a student on the interior skeleton of *Tyron*. Inset: *Kaleidoscopic*, a bronze welding by Miller, currently hangs in the lobby of Williams Library.





Born in Virginia, Paul Franklin Miller Jr. was an American sculptor and art educator. Heavily influenced by famed abstract expressionist Hans Hofman, with whom he studied at Hofman's Provincetown, Massachusetts, school, Miller would eventually take up welding and forge his own path in the art world, creating masterful sculptures focused on symmetry. His works were commissioned by New York City financial institutions, houses of worship and private collectors. It was in 1969 that Miller joined Stevens as its artist-in-residence for 25 years, where he taught classes and continued to advocate exposure to the arts. He died on March 29, 2012.

As College of Arts and Letters professor and Visual Arts & Technology program director Jeffrey Thompson notes, Miller's impact is still felt on campus today. "His work bringing the arts to Stevens, in the form of his own artistic work, his mentoring of students, and bringing other artists to campus for exhibitions and lectures — this is very much what we do in the visual arts program today," he says.

embraced. She would like the money to go toward extracurricular expenditures that don't fall within the budget, to be used to further inspire students.

"I don't care if it's a lecture series one year, a film series the next. I just want it to go toward something they wouldn't normally be able to do and create opportunities. And," she muses, "if this is for the students, I think they should get a say in it.

"Also, arts have a hard time getting funded," she continues. "There are an awful lot of people who've gone through tech school and made a lot of money and will donate to that. But there aren't a lot of people who've gone through art school and made a lot of money, so there's a hole there, and it makes me happy to contribute."

CAL faculty couldn't be more grateful to receive such a generous gift.

"Nancy Miller is a passionate advocate for

the arts and art education, and it is an honor for the Visual Arts & Technology program to receive this gift from her," Thomas says. "The endowment will benefit our young artists going forward in exciting ways. It is a wonderful tribute to the legacy of Paul Franklin Miller, who had a tremendous impact as an interdisciplinary artist and educator at Stevens."

As for Nancy, she says seeing how Stevens has grown and, specifically, how CAL has developed, make this gift all the more special to her.

"What's happening at Stevens now is very exciting to me. I think that [President] Nariman Farvardin has such a wonderful mind and is so interested in the whole global business," Nancy says. "Stevens is in a wonderful place...I think Paul would feel very, very proud of what's happening."

◆ — *Rebecca Markley*



For more information on Paul Franklin Miller and to see a collection of his works, visit [paulfranklinmiller.com](http://paulfranklinmiller.com)



# COMBATING CONCUSSIONS

Researcher uses cutting-edge brain imaging techniques, protocols to help end epidemic

1

According to a National Collegiate Athletic Association survey, nearly one-quarter of student athletes experience concussions — mild brain injuries — during their collegiate career.

Mehmet Kurt wants to protect them. An associate professor who joined Stevens' Department of Mechanical Engineering in 2016, Kurt is already establishing himself as an expert on the issue, with a recent National Science Foundation grant and coverage in the Sept. 9, 2017, edition of *The Washington Post*.

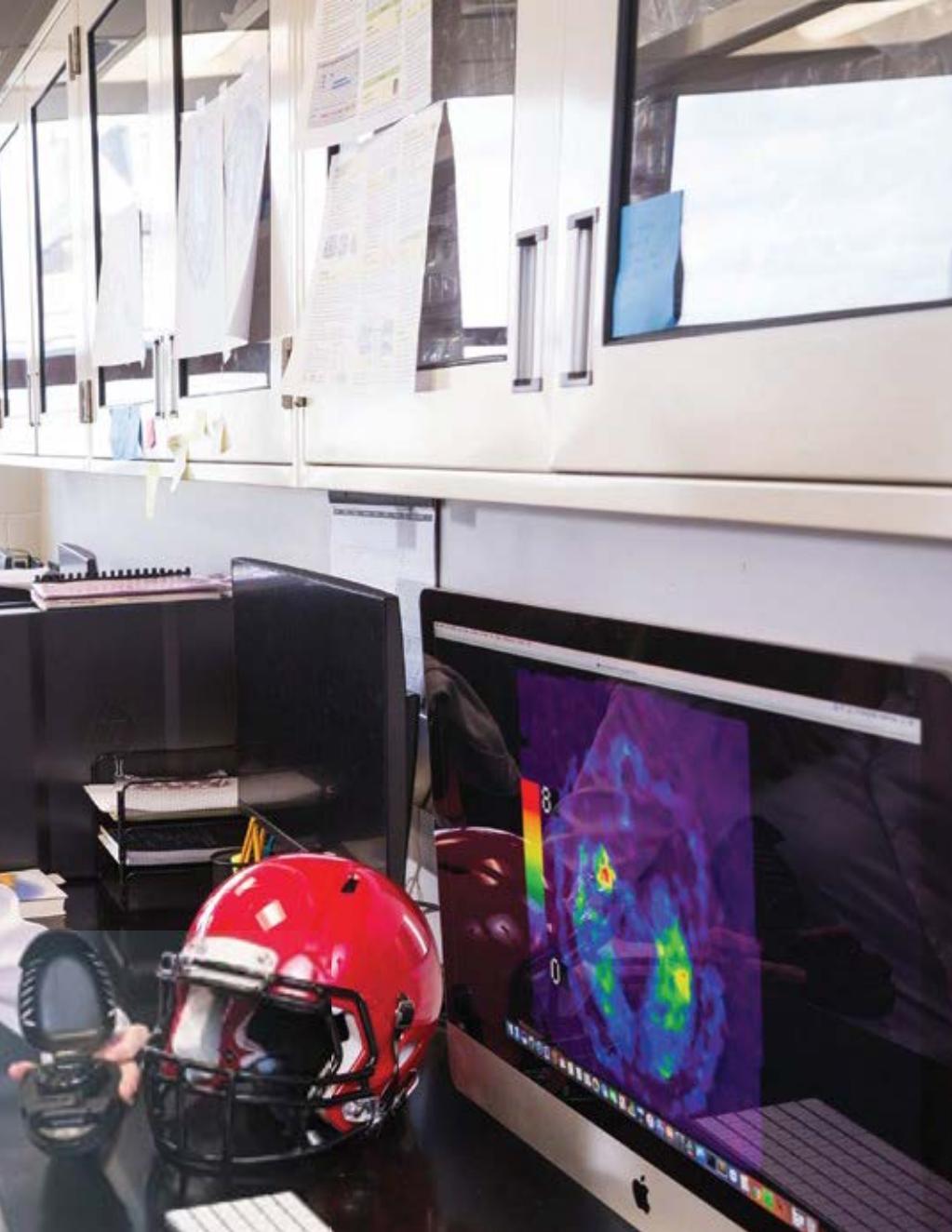
"I love helping improve the quality of peo-

ple's lives through biomedical engineering," Kurt says. "Although millions of dollars in research funding has been put into understanding and solving the concussion epidemic, the severity and societal burden persists. I'm trying to solve it."

As Kurt sees it, the key to solving the concussion epidemic is using a combination of computational modeling and medical imaging to understand the mechanical properties of the brain. Measuring the brain's mechanical properties could give us hints about how and why the brain functions the way it does. Once



2



1 Professor Mehmet Kurt, left, with postdoctoral researcher Gloria Fabris and graduate student John Martinez, inside KurtLab. 2 A mouthpiece worn by the Stevens women's soccer team members measures the impact of "headers" and is analyzed by Kurt's research team. PHOTOS: MICHAEL MARMORA

state-of-the-art computational models of the brain, incorporating results from medical imaging experiments. They're working with Samantha Holdsworth of Stanford University on a methodology called amplified MRI, where they study the motion of the brain in response to cardiac beats.

This past fall, KurtLab outfitted the Stevens women's soccer team with head impact sensors to collect and measure real-time data.

"The shielding presence of the skull is a major challenge for mechanically accessing the brain and measuring its mechanical properties," explains Kurt. "I am proud of our group's multi-disciplinary approach in tackling this problem. This is what differentiates us in the field."

In addition to these research areas, Kurt is also the recipient of an NSF grant for his project, "A New Nonlinear Modal Updating Framework for Soft, Hydrated Materials." The grant is part of the NSF Dynamics, Control and Systems Diagnostics (DCSD) program and is in collaboration with the University of Illinois at Urbana-Champaign. It will cover three years of research into developing methodologies for better characterization of the nonlinear dynamical properties of biomaterials — meaning, a way to mechanically probe, observe and interpret data from a biomaterial.

"The findings of this research have the potential to drastically enhance the accuracy, cost-efficiency and accessibility of broadband biomaterial characterization and, as such, it can be transformative in many biomedical areas, including the study of brain mechanics," Kurt says.

While he's only been at Stevens for a short time, Kurt is excited by the gains his research has already made.

"There is a certain level of excitement and momentum here that you can rarely see in other institutions," he says. "Everyone that I met before coming here was really passionate about what they do. It's so easy to interact with other colleagues, which makes this place special. I'm excited to be here!" ♦ — Laurie Vazquez

those properties are clear, it's easier to identify the causes of different kinds of damage, from concussions to aging — and figure out how to fix them.

Kurt and the students in his lab, known as KurtLab, do this in three ways: neuromechanics imaging, computational modeling and instrumentation. "We develop neuroimaging tools to measure the mechanical properties of the human brain in vivo [in living humans]," Kurt explains.

The lab's key neuroimaging tool is magnetic resonance elastography, or MRE. MRE

is a non-invasive medical imaging technique that uses an MRI to measure the stiffness of soft tissues. MRE also helps researchers see microstructural components of neuronal tissues. Kurt, who was a postdoctoral scholar in the Department of Bioengineering at Stanford University, works closely with the Icahn School of Medicine at Mount Sinai on applications of MRE and holds an appointment with the school's Translational and Molecular Imaging Institute.

Kurt and his Stevens team are also creating



To see interviews with Kurt and his student researchers discussing their research with KurtLab, please visit [stevens.edu/news/concussions](https://stevens.edu/news/concussions)



## STEVENS CELEBRATES ATHLETICS ALUMNI DAY A NEW TRADITION

**S**tevens' athletics department celebrated its first Athletics Alumni Day in style on Sept. 30, inducting five new members to the Athletic Hall of Fame and hosting a trio of Empire 8 soccer and field hockey games on Castle Point.

The new approach to homecoming (replacing Homecoming Weekend) included alumni games featuring women's lacrosse, men's lacrosse, men's swimming, women's swimming and baseball programs.

Saturday afternoon saw both the men's and women's soccer teams grabbing victories, while field hockey came up short.

The crowning moment of the weekend came Saturday evening, during the Hall of Fame induction ceremony, where Kara Borzillo '10 M.Eng. '12, Mark Cardillo '64, Salme Cook '09 M.Eng. '11, Christine Smith '11 M.Eng. '12 and J.R. Maehler '09 M.S. '11 joined the ranks of Stevens sports royalty inside De-Baun Auditorium.

Borzillo was a standout for both the field hockey and women's lacrosse teams at Stevens. The most prolific scorer in Stevens field hockey history, at the time of her graduation she was the Ducks' all-time leader in goals (52), assists (25) and points (129). At graduation, she also held the program's single-season records with 19 goals, 48 points and 2.09 points per game, all set in 2008. She was an All-American in 2009, a National Field Hockey Coaches Association Division III Senior All-Star, four-year all-conference selection and the 2009 Empire 8 Player of the Year.

Cardillo, a member of the men's fencing program, was one of the most talented sabreists to stalk the strips of Castle Point. Cardillo won back-to-back Middle Atlantic Collegiate Fencing Association Sabre Championships in 1963 and 1964. He also won three MACFA medals, including consecutive gold medals in 1963 and 1964. His count of three medals has never been bested by a Stevens fencer, and his two golds



**1** The men's alumni lacrosse game saw a fine turnout during Athletics Alumni Day last fall. Alumni traveled from as far as California and Minnesota but fell to the current team 17-6. **2** Inducted into the Stevens Athletic Hall of Fame during the weekend, from left, were Salme Cook '09, Christine Smith '11, Mark Cardillo '64, Kara Borzillo '10 and J.R. Maehler '09.

are still the standard of the program.

Cook was a force in both women's track and soccer for the Ducks. For the soccer squad, she scored 23 goals to put her eighth on the all-time list for scoring, despite playing the bulk of her career on the defensive line. She was a four-time All-Region Selection, four-time first-team all-conference pick, the conference Rookie of the Year as a freshman and Defensive Player of the Year as a senior. On the track, she helped begin the most successful stretch in program history by being the first Stevens athlete — male or female — to compete in the NCAA Track & Field Championships by posting a qualifying time in the outdoor 800 meters

in 2010. She still holds the 800-meter outdoor school record and the 500-, 600- and 800-meter indoor school records, plus three additional relay standards.

Smith is renowned for her outstanding four-year lacrosse career for the Ducks. She was a three-time All-American selection and the program's all-time leader in draw controls, with 300. To date, only two other players have notched more than 200 career draws in program history. She was a First-Team Intercollegiate Women's Lacrosse Coaches Association All-Boardwalk Region selection in all four years of her lacrosse career, played in the 2011 North/South All-Star Game and helped lead

the team to a .812 winning percentage in her four years with the program.

Maehler cemented his name in the long tradition of Stevens lacrosse as one of the best attackers in Castle Point history. Maehler's 2007 campaign saw him score 55 goals with 45 assists — marking the only time a Duck has broken the 100-point barrier in a season to date. His 5.56 points per game is good for third all-time. Maehler is first all-time in assists and points and third in goals. He was also named All-American three times, in addition to three all-conference awards and the league's Player of the Year award in 2007.

In addition to the five newly minted Hall of Famers, the athletics department awarded the President's Cup to the Stevens wrestling program, which signifies excellence on the field of competition, success in the classroom, service to the community and sportsmanship.

The 2016-17 wrestlers ran the table with a perfect 22-0 record in dual matches, the most victories in a perfect season for any team in any sport in school history. It also posted the 11th best GPA in the country among wrestling programs.

The alumni games were a smashing success, with more than 40 alumni returning for the men's lacrosse game, traveling as far as California and Minnesota; 18 alumnae traveling as far as New Hampshire and Maryland for the women's lacrosse game; and close to 30 alumni taking the field again for the alumni baseball game.

The baseball team saw alumni from the 1960s through the 2010s return, while men's lacrosse welcomed back players from the 1980s through the 2010s. The student teams clobbered the alumni teams in men's lacrosse (17-6) and women's lacrosse (13-6), while baseball saw the "odd" graduation years beat the "even" years 8-3. *(For more game photos, see the Class Logs.)*

With the success of the first Athletics Alumni Day, Athletic Director Russell Rogers says he hopes it's the beginning of a new tradition on campus. "The idea of Athletics Alumni Day got off to a great start this past fall and the alumni turnout for the hall of fame inductions was one of the strongest we have seen to date. I thought blending the past with the present through the presentation of the President's Cup made the event even more special, and we are already looking forward to next year!" ♦ — *Jon McCue*

# CALENDAR

## JAN 31

### WEDNESDAY

President's Distinguished Lecture Series presents Tom M. Mitchell, E. Fredkin University Professor, Machine Learning Department, Carnegie Mellon University  
[stevens.edu/lecture](http://stevens.edu/lecture)

## FEB 26

### MONDAY

Provost Lecture Series on Women in Leadership, with Dr. Connie Mariano, White House physician to Presidents George H.W. Bush, Bill Clinton and George W. Bush

## MAR 20

### TUESDAY

OnStage at Stevens, "An Evening of Irish Music," featuring players and friends from the New Jersey Symphony Orchestra  
[stevens.edu/onstage](http://stevens.edu/onstage)

## APR 14

### SATURDAY

Stevens Awards Gala  
[stevens.edu/awardsgala](http://stevens.edu/awardsgala)

## MAY 1

### TUESDAY

Houston Alumni Club's Astros vs. Yankees game outing, happy hour

## MAY 2

### WEDNESDAY

Stevens Innovation Expo

## MAY 17

### THURSDAY

OnStage at Stevens, "An Evening of Bach," with an ensemble from the New Jersey Symphony Orchestra  
[stevens.edu/onstage](http://stevens.edu/onstage)

## JUNE 1-3

### ALUMNI WEEKEND 2018

[stevens.edu/alumniweekend](http://stevens.edu/alumniweekend)



For all Stevens events, visit [stevens.edu/events](http://stevens.edu/events)



# Upward Trajectory

## RECENT HONORS PROPEL STEVENS TO CONTINUE ITS RISE

From national honors and gifts to a steady rise in the rankings, Stevens was consistently on the receiving end of great news this past fall. “Recent accolades reaffirm the progress that the university community has made in shaping Stevens into a premier, student-centric university,” says President Nariman Farvardin. “For the university’s 147-year history, Stevens Institute of Technology has been a powerhouse for engineering, research, and technological innovation, delivering a world-class education to our graduates. For the last six years, the Stevens community has expanded these strengths, infusing technology and innovation into cutting-edge programs in business, as well as the arts and humanities. These accolades give added momentum to our ambitious goal to become a world-class, world-renowned university.” Here’s a look at Stevens’ recent recognitions:

### **PRESIDENT FARVARDIN RECEIVES ACADEMIC LEADERSHIP AWARD**

Following a rigorous nomination and review process, Stevens President Nariman Farvardin was one of seven college and university presidents from across the country selected by Carnegie Corporation of New York to receive the 2017 Academic Leadership Award in recognition of exceptional leadership in higher education. The honor is granted biannually to select educators who demonstrate vision and an outstanding commitment to excellence in undergraduate education. Stevens received a \$500,000 grant associated with Farvardin’s award, and with this grant, along with additional support from PSEG, ADP, AT&T and a number of Stevens alumni, the university launched the Stevens ACES program this past fall. (See *story on the ACES program on page 32.*)

### **‘GREEN’ STEVENS**

Stevens was commended for its exceptional commitment to sustainability, based on academic offerings and career preparation for students, campus policies, initiatives and activities, in *The Princeton Review’s “Guide to 375 Green Colleges, 2017.”* Additionally, the City of Hoboken designated Stevens a “2017 Hoboken Green Business.” Stevens was one of only 23 businesses to receive the distinction.

### **A TOP 25 ‘MOST INNOVATIVE SCHOOL’**

*U.S. News & World Report* has named Stevens Institute of Technology to an exclusive list of the top 25 “Most Innovative Schools” in the nation in its *Best Colleges 2018* rankings. The ranking shines a spotlight on Stevens as one of a select number of schools “that the public should be watching because of the cutting-edge changes being made on their campuses,” according to *U.S. News*. Stevens also climbed to No. 69 overall in *U.S. News’* National Universities rankings, up from No. 71 last year and No. 88 in 2011, making Stevens the second-fastest-rising college in the nation among the top 100 national universities. Improvements have been made across nearly all metrics collected by *U.S. News* — including enrollment selectivity, student success, financial profile, alumni engagement and peer assessment — over the past six years.

Join us at the historic Plaza Hotel for the fifth Stevens Awards Gala, as we honor the remarkably accomplished alumni and friends of Stevens Institute of Technology. Slip into your tuxedos and evening gowns and show your pride in Stevens on this special night.

**STEVENS AWARDS**

# *Gala*

**APRIL 14, 2018**

Reserve your seats by March 30, 2018 at [stevens.edu/awardsgala](http://stevens.edu/awardsgala)

# alumni**news**



## **Hanging with an Icon**

Can you identify this student posing with the Torch Bearers statue on campus, circa early 1970s? If so, email [editor@alumni.stevens.edu](mailto:editor@alumni.stevens.edu).

# SAA President's Letter

## New leader, new ways to engage with the SAA

Dear Fellow Alumni,

As your newest Stevens Alumni Association president, I am honored to be working with representatives of the Stevens community to serve as a voice for our 40,000 alumni around the world. Over the past 13 years, I have enjoyed my different volunteer roles as an alumna of Stevens, and the unique opportunity each has afforded me in getting to better know the Stevens community of alumni, students, faculty and staff. As I look to the year ahead, I remain even more strongly committed to the Alumni Association's mission of improving connections among all of its diverse members, as well as working to foster an even stronger connection with the university.

Earlier this year, hundreds of alumni took the time to review proposed changes to our association's governance documents. My sincerest thanks to each of you who cast your vote. Your participation in this important process is what will continue to propel the Stevens Alumni Association forward. At this point, the Executive Council is diligently working to ensure that a clear, comprehensive and concise plan is developed for a smooth transition. There are several elements to this plan in order to ensure that there exist pathways for all alumni — regardless of geographical location, degree, industry, class year, etc. — to volunteer for roles within the association. As these efforts continue, I will update the broader alumni community and continue to solicit your input and feedback.

A strategic improvement that has already been implemented to allow for increased alumni participation is the use of WebEx, which allows alumni leaders who can't make it to Castle Point to participate in our association meetings online. Until this past September, meeting participation was essentially limited to those within driving distance of campus. This restricted the scope and impact of the association, as the vast majority of our alumni



living across the country and around the world could not effectively volunteer for leadership positions within the organization. As we look forward, our regional leaders and other volunteers around the globe will be able to share their experiences and ideas with the association, improving our offerings and increasing the benefits of being involved and invested in our alma mater.

As we continue to launch new ways for the alumni network to interact with one another and share their expertise, I encourage you to take the next step toward becoming an even more active alumnus. Whether it's attending an event in your region or with one of our affinity clubs, signing up for the Alumni Portal to view or post job openings (connect.stevens.edu/job-opportunities), identifying yourself as someone who can offer an intern-

ship or speak to a class, or making a gift in support of your favorite program or scholarship, there are a number of ways for you to show your Stevens pride and help your alma mater reach for the stars!

Thank you again for allowing me the opportunity to serve as president of our Alumni Association. I am excited for the year ahead as we work to strengthen and grow our membership through the upcoming transition.

Per aspera ad astra,

A handwritten signature in black ink that reads "Vicky Velasco '04". The signature is written in a cursive style.

Vicky Velasco '04  
President, Stevens Alumni Association  
president@alumni.stevens.edu

# Class Logs

Alumni Weekend reunion, June 1-3, 2018

## '43

Oct. 24, 2017 — In the absence of any messages from our classmates, I am furnishing a photo of me and my five great-grandchildren. Bill Caldwell and I talk by phone quite frequently, and I occasionally talk with C.H. Anderson. I would like to hear from others of our fellow classmates.

Bill Caldwell suggests a 75-year reunion in 2018, and has asked me to collect time and place suggestions.

Please contact me at my address, by phone or email, at the end of this log. Thanks, R.M. "Andy" Andersen. — R.M. "Andy" Andersen, 20 Valley Drive, Orinda, California 94563; 925-254-3816; [RMAndyAndersen@comcast.net](mailto:RMAndyAndersen@comcast.net)

### Walter E. Taverna

Walter E. Taverna of Washington Township, New Jersey, a World War II Navy veteran, died on Oct. 26, 2017. He was 95 years old.

Taverna was a licensed mechanical engineer in 18 states and worked in the field of engineering, design and construction of fossil fuel-fired electric power generating plants as a project manager, both in the U.S. and overseas, until he retired from Burns and Roe Enterprises in 1985.

Assigned to the U.S.S. Blackfin submarine, Taverna qualified as an officer while on board and completed five war patrols, for which he received the Submarine Combat pin (1 star). He was also awarded the Asiatic-Pacific Campaign Medal (1 star), the Philippine Liberation Medal (2 bronze stars), and the Victory Medal.

Taverna is survived by his sons, James and John; his daughters, Mary Taverna Ali, Kate Taverna, Helen Taverna, Nancy McCartin and Joan Pinaire; 12 grandchildren, 15 great-grandchildren; his cousin Marie Villavecchia; and also by Kerry Adelson and David, Paley and Oden Grodberg. He was predeceased by his wife of 71 years, Genevieve, and a grandson, James Pinaire.

## '46

*Editor's Note: Here is the second installment of a guest log written by world traveler and adventurer*

Dick Boera, who shares many memorable moments:

Drinking a toast to Shackleton at his gravesite on South Georgia Island; lighting a candle for El Cid at his Burgos Cathedral tomb; staring at the coffins of Ferdinand and Isabella; pausing at

1



1 Andy Andersen '43 enjoys his five great-grandchildren. 2 Joe Schneider '46 and Nancy Catello, at right, enjoy a laugh with President Nariman Farvardin and a student at the Scholarship Luncheon last fall.

2



Gandhi's cenotaph; treading the Via Dolorosa within Old Jerusalem; leaving a Vermont stone on Lindbergh's remote and simple grave on Maui; viewing with awe the final resting places of Nelson and Wellington in St. Paul's Cathedral as well as Isaac Newton in Westminster Abbey; looking down upon the marble sarcophagus of Napoleon at the Hotel des Invalides in Paris; driving — no, not walking — the fabled El Camino de Santiago ("The Way") to the burial place of St. James at Santiago de Compostela.

Mingling with penguins in Antarctica and sailing on a schooner in Greenland's Scoresby Sound above the Arctic Circle. Cruising the Inside Passage to Alaska.

Wandering in the market maze of Istanbul's Grand Bazaar and navigating through the endless series of tunnels between Oslo and Bergen. Grating my teeth upon first hearing the indescribable screech of a Tasmanian Devil in Tasmania.

Gazing at a "green sunset" from a rooftop restaurant in Oia on Santorini Island. Looking out for the monster while cruising Loch Ness.

Hiking the length of Crete's Samaria Gorge and being rewarded with the sight of the beach at trail's end. Hiking a small section of the Great Wall.

The beaches on Mykonos and Rhodes...and memories of the beach at Acapulco when it was a little village (1938).

Sipping ouzo and people-watching at my favorite harbor café in Hania, Crete. Skydiving from 14,000 feet over Hawaii at age 83 (à la George H.W. Bush). A 12-day train ride from Moscow to Vladivostok shared with good friends on the Trans-Siberian Railway, a picnic alongside frozen Lake Baikal, and a detour to Mongolia.

Pinning a USAF general's star on a son in

Hawaii and surprising him with unannounced visits to his bases in Turkey, Japan, Germany and Guam.

Serving as a "testigo" (official witness) at two family weddings in Spain.

Meeting up with a daughter stationed in Korea, together visiting the divisive DMZ, and catching up with her again in Hong Kong. Pinning a command insignia on the colonel-daughter in Monterey.

A memorable dinner in Lisbon. Always feeling "at home" in Barcelona. Hailing a water bus in Venice and hitching a train ride to Berlin. Looking up at Big Ben while counting its chimes.

Paying my respects to the Habsburg Holy Roman Emperor Charles V (King Charles I of Spain, under whom our illustrious ancestor served as Capitan-General of the Mediterranean Fleet), at the monastery of Yuste, his retreat after abdicating both titles in 1555-56.

Posing for the camera of a Japanese tourist while entwined by a live and heavy python on Bali. Transiting the Panama Canal after cruising the west coast of South America. Barely escaping a mugging in Irkutsk, Siberia.

Listening to Hemingway and Michener tales during visits to my author friend's bull ranch north of Andalusian Sevilla and meeting up with his legendary matador/artist sidekick. Traveling by train to Thailand with a Buddhist monk via Malaysia. The bus ride across Australia, east from Perth to Sydney. Following Michener's *Tales of the South Pacific* to the islands of French Polynesia and touring his own "Bali Hai" (Bora Bora). Swinging a club on the first tee of the Old Course at the Royal & Ancient Golf Club of St. Andrews. Attending Parliaments in Singapore and Canberra. Soaring in a hot air balloon over

Mt. Kilimanjaro. Safaris in Kenya and Tanzania.

#### Uncategorized memories

"Einstein and Me": tea and crumpets alone with the Man-of-the-Century for a half-hour (1944).

"William Rehnquist and Me": the Chief Justice of the United States is my guest speaker at Rotary. I pick him up at his summer home and we take a drive together around part of Vermont's Northeast Kingdom. He's a big hit with the Rotarians, both talking and singing (1996).

"Me and Edith Roosevelt": escorting T.R.'s widow as a young Eagle Scout at a statue commemoration (1940).

"Bob Hope and Me": a one-on-one repartee with the incomparable comedian...with rising star Doris Day in the mix (1949).

Seeing Babe Ruth and Lou Gehrig play at Yankee Stadium (1934); watching Hagen, Sarazen, Snead, Hogan, Palmer and Nicklaus on the links... and admiring Jones and Woods.

Never tiring of riding the Staten Island Ferry.

Always having jobs that I loved and having good and capable people to work with.

A golfing hole-in-one at age 77. Besting my age as a nonagenarian.

Watching our children raise their children.

Remembering with gratitude two wonderful parents; fishing, bowling and golfing with both. Remembering happy times with other relatives and good friends. Inheriting a good reputation in the community and earning it on my own. Being recognized by my community as a citizen of worth. Not owing anyone a dime...and waking to another sunrise!

Helen Keller had it right: Life is either a daring adventure or nothing... — **Dick Boera, Essex, Vermont; arbjlb@comcast.net**

**'47** October 11, 2017 — Guest log from G. Fred Smith:

I was born in 1926, February 18, along with my twin sister, Mary Helen, in Sunbury, Pennsylvania, the last of six children to my parents, William Kay and Jennie Smith.

We lived at 142 Fairmont Avenue in Sunbury. My mother, Jennie, was a graduate of Millersville College and a school teacher. My father, William Kay, owned and ran a shoe store in Sunbury. In 1936, we suffered a flood in Sunbury. Our family lived on the hill in town and were okay but the store was flooded. No one had flood insurance,

so my dad lost the store and had to go to work with someone else in Bloomsburg, Pennsylvania.

My twin and I were in the Class of 1943 at Sunbury High School. That year, during World War II, a man came to our school and said a test would be given in every high school in the country on the same day and if you passed it, you could go to college and receive your education for free and be a Navy V-12 student for free.

So, I took the test and later a letter came and said I was to become a Navy V-12 student at Stevens Institute of Technology at Hoboken, New Jersey. I knew about Hoboken but did not know about Stevens at the time. However, I took the train to New York City and visited my brother Bill, who was teaching at the midshipman's school at Columbia at the time. The next day, I went over to Hoboken and joined the V-12 Program.

We got our uniforms and meals free and went out for exercise every morning before breakfast and classes.

As the men in classes ahead of us graduated, they went to midshipman school and then got commissioned as ensigns, but when we graduated in 1946, the war was over.

I elected to stay in service for another two years and went aboard a destroyer escort in the Atlantic Ocean. After getting out of the Navy, I went to work for Ebsco Services of the PP&L plant in Sunbury for two years and then was recalled to the Navy for another two years on a D.E.

After that, I worked for Armstrong World Industries in Lancaster, Pennsylvania, before my retirement in 1996. We moved to Willow Valley Retirement Community then and are still here. I've always been glad to say I'm a Stevens grad.

Very truly yours, G. Fred Smith.

P.S. Any other Stevens grads at Willow Valley? My first year at Stevens, I lived in the Castle along with **Smith, Smith and Sobeleski (Leon, Tobey, Donald and me)**. They called us "The Lawyers." Any other classmates still out there?



**William J. Neill, Jr. '47**

**William J. Neill, Jr.**  
William J. Neill, Jr. M.S. '51 of Westfield, New Jersey, a mechanical engineer, World War II Navy veteran and staunch supporter of Stevens, died on July 24, 2017.

Neill was accepted into the Navy V-12 Program during World War II and enrolled in Stevens. He was deployed to the Pacific initially as the executive officer on the PCC 881 and later was assigned as the navigator on a light cruiser.

After the war, he worked with Esso's Bayway Refinery in Linden, New Jersey, as a mechanical engineer, designing oil refinery piping and systems. He later worked on the development of industry standards for these, served on numerous committees of the National Association of Corrosion Engineers and also served as its president for many years.

He was very active at Stevens, serving on the university's board of trustees and as president of the Stevens Alumni Association. But his focus was always his family. He and his wife of 66 years, Peggy, gathered family and friends over many summers at their home in Bay Head, New Jersey, to enjoy the beach and build a rich trove of memories.

Mr. Neill was predeceased by his wife and their son, Bob. He is survived by their children, Peggie McQuaid, Bill, Jim, and Rosemary Burgess; his brother, Robert H. Neill; and seven grandchildren. — *The Stevens Indicator*, **Castle Point, Hoboken, NJ 07030; (201) 216-5531; alumni-log@stevens.edu**

#### Alumni Weekend reunion, June 1-3, 2018

**'48** Oct. 3, 2017 — Dear Class of 1948, **Warren E. Ring** is deceased; date of his death is Sept. 21, 2017. That brings the number of our recorded living class members down to 22.

For this issue of *The Indicator*, I contacted our first seven listed class members. For **Peter Ash** (203-227-5261), for **Walter Ewanus** (410-465-2643), and for **Dan Haagens** (415-382-2009), they are no longer listed at these phone numbers. For **Bob Bruce** (757-838-2579) and for **Martin Graham** (516-486-1298), I left a message asking them to contact me; I will forward their messages for *The Indicator*, when received. Finally, success talking with **Virginia Cassinis**, **Eddie's** wife. Eddie is confined in health care, for dialysis treatment. Virginia and Eddie have a good time together every day. Eddie maintains a good sense of humor, and Virginia describes him as "happy and accepting."

To those who read this log, please give me any

## SAA Update

Looking for a job? Looking to hire someone? Log into the Alumni Portal Job Board to view the 20-plus listings and/or to post your own position to the Stevens alumni community. Please visit: [connect.stevens.edu/job-opportunities](http://connect.stevens.edu/job-opportunities)

### SAA Meeting Dates

- ▶ Monday, February 12, 2018
- ▶ Monday, April 9, 2018
- ▶ Monday, May 14, 2018
- ▶ Monday, June 25, 2018

Please note that these meeting dates are subject to change. Please RSVP with the Alumni Office prior to all meetings by emailing [alumni@stevens.edu](mailto:alumni@stevens.edu) or by calling 201-216-5163.



**STEVENS**  
ALUMNI ASSOCIATION  
PER ASPERA AD ASTRA

**ALUMNI WEEKEND 2018 JUNE 1 - 3, 2018**  
[stevens.edu/alumniweekend](http://stevens.edu/alumniweekend)

info regarding Peter Ash, Walter Ewanus, or Dan Haagens.

A thought for consideration by our Stevens family (faculty, students and alumni). When we compare our world of today with that of the Roman Empire some 2,000 years ago, some important differences are readily evident. The Roman Empire, under Trajan, reached its greatest extent in 117 AD. Rome controlled (today's) Italy, France, England, Spain, the Balkans, Greece, Asia Minor and the entire coastal area of the Mediterranean Sea. The world accomplishments 2,000 years ago included the Pyramids of Egypt, the Great Wall of China, the Parthenon of Greece, and the Aqueduct of Segovia. These accomplishments were done with none of the facilities and equipment available today. The differences between 2,000 years ago and today: Two thousand years ago, with none of today's equipment, a unity of purpose developed to accomplish these feats; today, in spite of our manpower and equipment, we no longer seem to have this unity of purpose. It is as though we have become more concerned with our individual well-being than with the well-being of all. Perhaps we of Stevens can initiate the lead in overcoming this problem.

We are a dwindling group, but still going strong — so let's hear from you!! Please send your information, and also knowledge of our classmates. Please send photos, plus any other input for *The Stevens Indicator*. Many thanks, Lou Shook — [Lou Shook](mailto:Lou Shook), 220 Bay Colony Drive, Virginia Beach, VA 23451; (919) 619-3955; [loushook@cox.net](mailto:loushook@cox.net).

**'50** Fall 2017 — Classmates, Please share any updates about your life — your family, work, hobbies, travel, recent moves, volunteer work — as well as reflections on your career and your time at The Stute. Keep in touch, and thanks! — [William VandeVaarst](mailto:William VandeVaarst), 126 Timber Lane, Tafton, PA 18464-7798; H: (570) 226-7324; E: [vaarst@outlook.com](mailto:vaarst@outlook.com)

**'51** Oct. 30, 2017 — Hi, Classmates. I hope you all had happy holidays and a happy new year!

We've set a record since the last log! I have heard from two classmates twice and two more for the first time!

As soon as the fall issue came out, I heard from [Merriam Trube](#). He said he was out to share the good life things and skip the death and pains. He commented that his flying teammates would be surprised that their interceptors flew at mach 25 instead of mach 2.5 (light computer period and typo caused the speed increase). Merriam says now it's the South Platte River in Colorado with dry flies and 18-inch rainbow trout, sometimes come up slash fly, run 50 yards upstream and jump five times before allowing the trembling angler to net them before returning back to the river. Merriam says, "We live one foot in aerospace and the other in the mountains and streams. Born in Manhattan — reborn in Colorado. Happy Days!"

We also heard more about [Ed Fischer](#). His "adopted daughter" Loretta Houlis-Ward saw an invitation notice in Ed's P.O. mailbox for a Theta

Xi Fraternity reunion, so she updated them on Ed's status. They in turn notified all fraternity brothers. Ed's P.O. Box is 47, Pompton Lakes, NJ, 07442.

After "Irma" went by in September, I tried contacting [Stu Goldie](#) in St. Petersburg, Florida, to see how they were. His return email said they had evacuated for two days during the storm to his daughter's house. They were without power for a period.

A few days ago the phone rang and it was [Herb Fischer](#). He is still living happily in an assisted living facility in Raleigh, North Carolina. He wanted to remind everyone that his nickname is "Fuz." He also survived the hurricanes well. — [Robert E. Fairchild](mailto:Robert E. Fairchild), (908) 232-1647; [bobfairchild@comcast.net](mailto:bobfairchild@comcast.net)

**'52** Nov. 1, 2017 — Two of our class members who have been role models of leadership in college, industry, community service and family life during their lives passed away in September. They are [Arthur G. Pehrson](#) and [William B. Silvestri Jr.](#) Their names, along with some significant memories and tributes, will be entered into our class' Memorial Honor Role, which now includes 108 names. I want to sincerely include my condolences and thanks to their wives, Betsy Pehrson and Norma Silvestri, who provided much of this information and were lifelong partners leading to the leadership successes of these two men.

### Arthur G. Pehrson

On Sunday, Sept. 3, 2017, Arthur G. Pehrson, 87, with his wife, Betsy Pehrson, and family members by his side, passed away at the Preston Health Center in Hilton Head Island, South Carolina, after a long battle with Parkinson's disease. During his life, Art was the embodiment of infectious enthusiasm and imagination that he displayed in his many roles of capable leadership, not only to his family but also to all those who had the opportunity to spend time with him.

Art was born in East Orange, New Jersey, on Oct. 18, 1929. After graduating from Clifford J. Scott High School, he took a job on a work crew repairing railroad tracks for the DL&W railroad. It didn't take him long to decide that there were better career opportunities for him. He returned to high school to take intensive courses of study in math and technology. With a letter of recommendation, he was admitted to Stevens on a probationary basis. He made the Dean's List in his first semester and graduated with honors as a member of the Khoda Honor Society and Gear and Triangle Society, vice president of the Theta Xi fraternity and president of the Senior Class.

Four days after graduation Art and Betsy Louise Sammis were married. They both started employment with Sandia Labs in Albuquerque, New Mexico. In 1953, Art joined General Motors, where he was instrumental in the development and service of the motorized electric wheels for the very large strip mining operation equipment for the GE DC Motor and Generator Department in Erie, Pennsylvania. In 1981, he accepted a job with Xtek in Cincinnati, where he was responsible for the restructuring and rehabilitation of the company.

Art and Betsy retired to Hilton Head Island in 1994, where they have been able to enjoy their family, spend time with old friends and serve the community in many ways. Wherever Art and Betsy have lived, they have dedicated themselves to serving the needs of others. They also maintained their association with friends from the Stevens Class of 1952. Some of those Stevens friends included George Thompson, Ham Koehn, Pete Ferrara and Bill Silvestri, whose obituary follows. Over the years, they have visited more than 50 countries, including all continents except Antarctica. Art enjoyed golf, tennis, farming and more travelling.

Art listed his greatest satisfaction as his

family life with a wife and children, grandchildren and great-grandchildren. He was a leader we all will miss.

### William B. Silvestri Jr.

William Blasé Silvestri Jr., 88, died on Saturday, Sept. 9, 2017, in his home with his family in Leonia, New Jersey, after a long battle with cancer. Born on Dec. 24, 1928, in New York City, he grew up in North Bergen, New Jersey. He spent most of his married life in Leonia, where he and his wife, Norma, raised their family. Their other favorite location was Cape Cod, Massachusetts, where they were able to get together with fellow classmate Carl Hevert and his wife, Nora, and their family for summer vacations. Based upon the sizes of both families, Cape Cod was an excellent location to expend their energies and enjoy themselves.

Bill served two years in the Army before entering Stevens in 1948. In his undergraduate years he served many leadership roles, including president of the Theta Xi fraternity and treasurer of the Interfraternity Council. After graduation, he was employed for 25 years with Curtiss Wright before spending five years as vice president of Legion Utensils and finishing his career with John Deere.

Bill was active in the Leonia community, serving as president of the school board and vice president of the planning board, overseeing the building of the current Leonia High School.

Living eight miles from Stevens, Bill demonstrated his dedication to his class and college by serving as the class vice president and taking over the role of class fund drive captain from Carl Hevert. Bill and Norma faithfully represented the class at the scholarship awards events and were regulars in attendance at the Old Guard Luncheons. One of the most valuable services Bill took on was the special arrangements for the Alumni Day reunions during the Old Guard years. The event I remember most was the tour of Ellis Island as part of the 55th reunion. It was a place where many of us knew of ancestors who had arrived in the United States and passed through those buildings. We extend our condolences to Bill's wife, Norma, their five sons and their ten grandchildren.

There have been many events in which members of our class have shared the experience of a unique trip. One was the trip of Bill and Norma

Silvestri, Art and Betsy Pehrson and George and Ann Thompson to Machu Picchu, in the mountains of Peru, and the Galapagos Islands. It was in 2008 and the mountains were very high and the ocean not that calm and our class members not that young. However, they succeeded and enjoyed the fellowship and the experience, as we all have done over the years.

Respectfully submitted: Robert Wolf, Class Log Editor — [Robert F. Wolf, 3740 Broadview Road, West Lafayette, IN 47906-8608; \(765\)497-3853; bobw3740@gmail.com](mailto:Robert.F.Wolf@3740BroadviewRoadWestLafayetteIN47906-8608)

### Alumni Weekend reunion, June 1-3, 2018

**'53** Another alumnus reminded me that beside the tough technical subjects I described in the last issue, we had to endure the mandatory requirement that we take physical education classes in the old gym for one academic credit during all eight terms. I probably remember this class more than anyone else since Coach Partel flunked me in seventh-term gym because I was too busy with extracurricular activities to run around the dilapidated Walker Gymnasium for one hour three days a week. The "F" that SOB gave me lowered my GPA to less than 2.0. (No other alumnus has ever flunked senior year gym before or after that year.) The administration had no idea as to how I could make up such a class since there were no tests or exams to retake. Each senior exercised on their own and filled out a slip testifying to the activity. Per the honor system, no one would think of filling out the slips and not exercising. I know in today's environment to describe a school where no one cheated sounds like science fiction, but in those days a Stevens graduate was really respected for his ethics and honesty. Of course, over my career since then I violated that trust thousands of times and most of those times are described in the memoir I have been writing for the last eight months. (I'm not exactly writing the memoir — I hired a videographer who edited my old 16mm films and iPhone interviews with friends, classmates and family to create a 2 ½-hour masterpiece which will be available on a new website I created.)

Anyway, I should explain to first readers of this log that flunking gym in my senior year jeopardized my graduation because even one credit point would be a disaster. The administration, in



Charlie Schnabolk '53 shared this photo of ROTC students on campus circa 1950.

their infinite wisdom, decided that I pay \$12 for the repeat, which meant I had to take six days of gym in eighth term to graduate. It forced me to run around the track from 11 p.m. to 1 a.m. every Saturday night (part of a fraternity party ritual) to get two of the required six days in one session. Partel gave me a "C" but, after my pleading, he met with Dean Shumway and raised it to a "B" to allow me to graduate with a 2.00 GPA. Anyway, by graduation I was in the best shape of my life and I really should have gotten my very first "A" in the 66 subjects I took during the four years and three summers I spent on Castle Point Terrace.

I should add that flunking a class that no one had ever flunked before was not a new event in my illustrious college career. My team of four men flunked Summer Surveying Camp after freshman year, a grade never given out before or after in the 30 years that the camp was open. Our team had to take a 30-question quiz and pay \$34 to change our grade to a "C." The reason we flunked was that the soils report every team was required to submit contained dirty pictures to emphasize civil engineering principles and Professor Brett had no sense of humor whatsoever. I still have a copy of that infamous report that my children think is hilarious.

Larry Andrews is among the few alumni in the history of the college that has published two novels and he may be the only one to write both of them after he passed the age of 80. His second book is a murder mystery titled *The Caribbean*

*Endeavor* (<http://amzn.to/2ve3ill>) and I bought a copy through Amazon for \$13. It's really a great read, and I recommend it without any hesitation. Let me know what you think after reading it. Also, any of you would-be fiction book authors who are interested in getting a book published — why don't you contact Larry to see how he got his two books into circulation? — **Charles Schnabolk**, 7000 Kennedy Blvd East, Apt 42A, Guttenberg, NJ 07093; (917) 597-8462; [ricochas@aol.com](mailto:ricochas@aol.com)

**'54** Nov. 1, 2017 — I am happy to report that I received input from a number of our classmates. I sent one of my emails to **Bob McAlevy** and was saddened to receive a response from his wife Patricia, who informed me that Bob had passed away in mid-July. You'll find his obituary in this issue of *The Indicator*.

Pete Kalika responded with a short note indicating that other than continuing health issues, he had little to report. He said he was being treated for congestive heart failure and atrial fibrillation and spent three days in the hospital a couple of weeks ago. Pete went on to say that "on the pleasant side," his art hobby has been providing him with much joy. He does large drawings with color pencils which he displays at their senior center. They are primarily drawings based on photos either he or his wife Joyce has taken. Joyce says that "it keeps them both busy and off the streets." As with Patti and me, they

are looking forward to college basketball season. Thanks for the update, Pete, and we pray that your heart issues are resolved.

George Hromnak said that he and Peggy enjoyed a relaxing summer without any traveling and that he played his first round of golf since his bout with pneumonia. They also downsized their 26-foot trailer for a 17-footer and traded their huge Ford Expedition for a smaller new GMC Acadia. They plan to take a weekend trip to a Corp of Engineers campground near Lake Okeechobee, Florida. Sounds like fun, George.

I received a short letter from Ed Thayer who said that old age has finally caught up with him. In January, Ed had a bad fall that put him in the hospital. After that and several rehab sessions, he could not walk at all and was diagnosed with Parkinson's disease. This made him housebound in a wheelchair and he had to stop his work at the track after a 20-year career. Ed's wife Pat, who still works at the track, recently had a heart attack. Ed said she is doing well. I responded to Ed with a letter and he called me. We had a wonderful chat, and he seems to be doing well. Our thoughts and prayers are with you and your wife, Ed.

A short note from Jerry Fischer indicates that nothing new has transpired in his life except that Jerry's decline in bowling scores and escalation in golfing scores have both resulted in higher handicaps. Not very surprising but thanks for your response, Jerry. Yes, I would venture to say that as we all get older and creep into our 80s, things like that just start to happen. But thanks, Jerry, for touching base with us.

That is the extent of the information I received, and I wish all of our class the very best. In the meantime, stay healthy and happy and please send me an update on your life so I can share it with our class. — **Jack Sanborn**, 3994 Ballynaghown Circle, Fairfax, VA 22030-2498; (703) 754-6499; [Jack62@aol.com](mailto:Jack62@aol.com)  
**Pres. George J. Hromnak**, 45 Glenridge Blvd., Homosassa, FL 34446-4450; (352) 382-7445; [ghromnak@embarqmail.com](mailto:ghromnak@embarqmail.com)

**Robert F. McAlevy, III**

Robert F. McAlevy III, of Hampton Bays, New York, a longtime Stevens professor and research lab director, died on July 15, 2017.

He received a doctorate in aeronautical engineering at Princeton University.



Dick Cimeras '55 visited his ancestral Bohemian village, Strasice, now part of Czech Republic, and reported, "I was heart-warmed to have seen where my father was born."

McAlevy was a mechanical engineering professor at Stevens, where he also directed a research lab and consulted with NATO, NASA, the United States Air Force and others. His research interests included combustion science, rocket solid propellants, hydrogen fuel, electric autos, ion batteries and energy storage. He received many awards and accolades in recognition of his extensive research.

He was also active in environmental and conservation causes.

He is survived by his wife, Patricia, and a brother, Dennis.

#### Sheldon Schultz

Sheldon "Shelly" Schultz, a professor in the Physics Department at the University of California, San Diego (UCSD), who received worldwide acclaim for his contributions to the discovery of "metamaterials," died on Jan. 31, 2017. He was 84.

Schultz earned his Ph.D. in physics in 1960 from Columbia University, where he worked under the supervision of Nobel Laureate Polykarp Kusch. In 1960, he joined UCSD as one of the founding members of the Physics Department. His professional career as a UCSD faculty member continued until 2016, and he also served as the director of the Center for Magnetic Recording Research at UCSD from 1990 to 2000. He also co-founded and was president of Seashell Technology LLC, which has made several important contributions in the field of nanotechnology, nanomaterials and functional coatings.

His team at UCSD first reported the discovery of a "left handed" or negative refractive index material, by creating a new class of artificially structured materials, known as metamaterials. His co-discovery of metamaterials in 2000 in his

laboratory with several members of his research group was eventually hailed by *Science* magazine as one of the "Top Ten Breakthroughs of 2003."

He is survived by his wife of 63 years, Carol; his children, Mark, Laurie Kreutz and David; and six grandchildren.

**'55** Oct. 15, 2017 — This column will map the prior two columns onto this, so that our larger purpose will stay in focus throughout. That purpose is to enable classmates to assess their "overseas ancestral heritage" in the light of the new tools (DNA, isotopes, etc.) available, and/or from what they may learn visiting their "ancestral homeland."

Three columns ago I began this series by reporting on my European vacation, including to my maternal grandparents' village of Zirovnice, Bohemia (now, Czech Republic). That led to my inquiry into just "who" the Czechs "were," leading in turn to an instructive digression into how Gaul became France (as an illustration of "peoples-blending") and how the Celtic language Gaulish became French (as an illustration of "languages-blending"). The point was that European "nations" were clusters of tribes that had blended together under eventual nation-label concealing biologic and cultural variations that anyone wondering about ancestral forebears would find more explanatory than the blurring nation-label taken alone.

So, two columns ago, I began to lay out facts that would explain how each nation (peoples *and* language-culture) came together. As a result, I began to get classmate inquiries. For example, Dick Cimeras and wife Joyce wrote to me in puzzlement that an unexpected "6 percent Scandinavian" component had been found among Dick's

(expected) Czech-Polish DNA components, and in Joyce's DNA (all four of her grandparents being native Sicilians) there were unexpected "18 percent Middle East" and "8 percent Iberian Peninsula" components, yet her expected 100 percent Italian component was instead stated in the DNA report as "58 percent Italian/Greek." I was able to solve their puzzlement by explaining aspects of ancient geography/climatology/people-movements, and realized that the whole class also needed to see such contextual information. I then began to put that information into these columns, starting last column and continued herein. The Cimeras have since taken a Danube River cruise (July 2017) that included the Czech Republic (picture); more on their trip in a later column.

In the remaining balance of this column (secretaries have an 800-word budget per column), I will lightly preview the overall "story" that explains how the European "nations" came to be. Future columns on this subject will be available if you email me. (Elaboration will be in the next column, which together with this should add enough of the above "contextual information" needed by most classmates. Then, in the final columns in the series, a detailed analysis of the people and language of the British Isles and of Germany will be set forth.) The British Isles and Germany "nominated themselves" for detailed discussion because they represent by far the surnames most common in our Alumni Directory list (one-third and one-fourth of the class, respectively), which seems fairest to all: enough generalized analysis for our whole class, plus detailed analysis that would cover the largest fraction of the class. So, here goes:

The Celts in the north of the Italian refuge mostly left northward "after the ice" to be a founding-population in today's Switzerland and (as previously noted) Bohemia. The Italics in the rest of that refuge stayed, except that a fraction later moved across the still patchy-dry Adriatic to contribute to the founding population in the Balkans.

But the main story from the standpoint of the present nations of Europe begins with the earlier exodus from the Balkan-Ukraine refuge into the steppes to their northeast. This will be elaborated in the emailed or hard-copy mailed columns, but in brief they went through the hunter-gatherer phase, into a pastoral phase (the steppes were

largely grasslands, from today's Ukraine/Russia to the edge of today's China). In that process, many separate peoples emerged, speaking (it is estimated by historical-linguists) 20 to 40 (now-lost) steppes languages.

One of those peoples, the pastoral-herding Yamnaya, developed the rideable, domesticated horse, the wheel/axle, the wagon, and long-fiber weavable wool. These were an enormous assist in a pastoral-herder culture; the Yamnaya became both rich and admired. This made possible their development of a trust-based cooperative arrangement with neighbor-tribes (analogous today to a client, or employer-employee, relationship) in which they were able to "franchise" neighbors, becoming an organizing factor across the steppes. Ultimately, their non-violent expansion brought their methodology-technology (and their Proto-Indo-European language, PIE) into Europe to their west, as well as India-Persia-Afghanistan to their east.

Along the way — as detailed in the next column, available by email or regular mail — in the steppes and beyond, PIE differentiated within those neighbor-tribes into the daughter-languages now spoken from Europe to India-Persia-Afghanistan, and then through European colonialism, into the Americas, South Africa and Australia/New Zealand, to constitute altogether the "Indo-European" language-family spoken by half the world's population. Not until America's analogous methodologic-technologic culture spread world-wide in our lifetimes, had a single culture-language reorganized, peacefully and

willingly, such an enormous portion of the world as did an obscure pastoral-people, 6,000 years ago. — James A. Spady, 200 Locust Street, 8D, Philadelphia, PA 19106-3917; (215) 922-1606 or (215) 880-3989; kinneyj@wharton.upenn.edu

**'56** — Alan E. Lager, 6585 Maggiore Drive, Boynton Beach, FL 33472; (561) 735-9511; Alan\_e\_lager@msn.com

#### William J. O'Donnell

William J. O'Donnell, 82, passed away peacefully on April 23, 2017, with his wife, Margaret, and his family by his side.

Born and raised in Bayonne, New Jersey, O'Donnell lived the last 45 years in Point Pleasant Borough and Point Pleasant Beach, New Jersey.

A licensed professional engineer, he enjoyed an outstanding 35-year career at PSE&G, where he worked his way up the ranks as he oversaw the fabrication of several large power generating stations throughout the state that still operate today and keep the lights on. He ultimately went into management and attained the title of Chief Mechanical Engineer.

He was also an entrepreneur as part of a three-person startup company called Powerfect, which has grown and is still thriving today, 40 years later.

O'Donnell was deeply devoted to his family. One of his favorite pastimes was fishing and being out on the water on his boat, the Celtic.



William J. O'Donnell '56

He also enjoyed spending time back in the family home in Donegal, Ireland, and was an outstanding public speaker, a great listener, a talented manager and a great teacher, his family said.

At home, he never saw a project he was afraid to undertake, whether it was hooking up a septic system or painting the entire house every couple of years. He was a master electrician.

O'Donnell was a strong, determined, yet reserved man, with a huge, generous heart and kind and selfless soul, his family recalled. He is survived by his wife of 56 years, Margaret; his son, John '84 and his wife Sharon; his daughter, Bridget Paniscotti and her husband Mario; and eight grandchildren.

**'57** Oct. 11, 2017 — Here is an update from George Tompkins: "Dear Chuck, I was surprised that you had my letter to Dave Haid published in the fall issue of *The Indicator*. Unfortunately, I didn't explain why I did not attend our 60th. The ultimate reason was the Takata air bag in the front passenger side of our 2009 Subaru. It did not appear that the recall replacement would be done prior to Alumni Weekend. Subaru advised that no one ride in the front passenger seat until the replacement was done. Neither of



Above: The Class of '57 enjoyed its usual strong turnout for the Old Guard Luncheon last fall. Top right: Attending the Scholarship Luncheon last fall, from left, were Mal Hartman '57, Class of '57 Scholarship recipient Claire Szipszky, Class of 2020, and Art Stahl '57 and his wife, Rita. Bottom right: Lucille and Dominic Casulli '57, at the fall Old Guard Luncheon.



us wanted to ride in the back seat, although we do some of our best driving from there.

"So why not drive in our 2002 Subaru Legacy GT station wagon as we have been doing ever since 2002? Because my wife Carol was taught that once a car reaches 100,000 miles, it might fall apart unexpectedly at any time.

"That was not my thinking, but I could not prevail. For example, I drove my 1969 Mercedes 250 sedan for 165,000 miles until I was forced by the salt air of the Atlantic Ocean to send it to Mercedes heaven. It was mechanically in fine shape, but after three trips across the Atlantic Ocean and a year in Puerto Rico, the only thing holding the lower body shell together was the paint. Fortunately, Mercedes uses strong paint. Were it not for the salt air, I would probably still be driving it and aiming for 1 million miles. 1969 was a vintage year for that model.

"I hope to attend the 2018 Alumni Weekend, but I suspect that you guys are not going to plan a 61st reunion. How about a 65th or a 70th?

George." — **S.J. "Chuck" Filippone, 84 Paul Place, Fairfield, CT 06824-5836; (203) 254-3197; sfilippone@aol.com**

#### Alumni Weekend reunion, June 1-3, 2018

**'58** Oct. 31, 2017 — Well, it's Halloween today and I'm getting ready to watch game six of the World Series, which gives you an idea how early this column must be prepared and sent in. Along those same lines, this may be one of the last columns you'll see before our big Class of '58 60th anniversary reunion celebration, June 1-3, 2018. So it's my last opportunity to encourage you to come to Hoboken and be part of what will probably be our "last hurrah!" I know many of you recall our very successful 50th celebration, which seemed to go by so quickly that we didn't get a chance to fully re-ignite all our old friendships, and enjoy recalling Stevens in the mid-'50s, especially the quirks and sometimes strange habits of some of our outstanding faculty. I know many of you still live in the New York-New Jersey metropolitan area, so it's not a big trip to come up for at least some part of the weekend or, better yet, stay for the whole weekend in one of the local hotels. For those living farther away, you might tie it into a quick visit to New York City to see the latest attractions. In any case, your



Above left: Nick Mestanas '58 meets the Class of '58 scholarship recipient Gabriella Tantillo, Class of 2020. Read more in the '58 log. Above right: Catching up at the fall Old Guard Luncheon were Class of '59ers George Bonnici, left, and Bruce Lager.

reunion committee is becoming re-energized, though Nick Mestanas calls some of us (Walker, Fiocco, Bonner) "the walking wounded" since we are dealing with health issues (see column in last *Indicator*). With help from the Alumni Office, we'll keep you posted on the planned activities. Bottom line, though, is "Save the Date" and make plans to attend.

Speaking of Nick, he seems to get all the good assignments. Elsewhere on this page or close by, there should be a photo from the annual scholarship luncheon that Nick attended representing the Class of '58 and its endowed scholarship. He is shown with the latest recipient, Miss Gabriella Tantillo, a sophomore majoring in computer engineering, who is a member of the Stevens tennis team, among many other activities. She is a resident on campus and comes from Upper Saddle River, New Jersey. She expressed her sincere appreciation to the Class of '58 for the honor and financial aid provided by the endowed scholarship.

The other function that I was able to attend was the fall Old Guard Luncheon which, because of the aforementioned health issues, was sparsely attended by '58-ers. Only four of us made it, including Tom Lunghard, Nick Mestanas, John Boyle and your scribe Mike Bonner. President Farvardin came over and visited our table, and we were able to congratulate him on his recent award and recognition. In case you missed it, there was a full page in *The New York Times* highlighting the six recipients who were identified by Carnegie Corporation for its outstanding academic leadership award. We understand that the selection is an exhaustive process which looked at more than 4,000 candidates before reaching the final choices. We all agreed it is well deserved! President

Farvardin promised that he will visit with us during dinner at our 60th reunion.

My request last month for people to text me on my cell phone (732-890-5940) yielded only one response. Roger Pacquin informed me that he and Ethel are enjoying life but just downsized, moving to an apartment in New Hampshire. Roger, who is going on 86, informed me he is going in for hip surgery in November. If all goes well, he and Ethel, who just celebrated their 60th wedding anniversary, are looking forward to attending our 60th. The other response that I received from my solicitation earlier this year was from Joe Failace. He and Mafalda also have plans to come up from Texas for the 60th. I forgot to mention in my earlier class log that Joe had triple bypass surgery not long ago but recovered nicely and is now fully active.

Sorry if once more this column seems to be focusing on health issues and the problems of growing older, but I guess it comes with the territory. One aspect that I had not anticipated was the cost of these newer medications. Some of you may be facing similar situations. In my own case, the base cost of the drug for multiple myeloma is \$150k/year. Fortunately, with insurance, my co-pay is only about 10 percent — but still a substantial amount! I'm not a fan of big pharma but I guess we should be thankful that these new immunotherapy-type treatments and drugs are being developed.

Once again, send me a short text message to let us know how you are enjoying these "twilight years," and whether you plan to attend our 60th. — **Michael F. Bonner, 329 Sylvania Ave., Avon by the Sea, NJ 07717-1242; (732) 890-5940; mfbonner@optonline.net**

**'59** — George C. Pezold, 120 Main St., Huntington, NY 11743; (631) 271-8817; [george.pezold@transportlaw.com](mailto:george.pezold@transportlaw.com)

Donald Joseph Engleke

Donald Joseph Engleke, a Navy veteran, died on Sept. 20, 2017. He was 85.

After many years in the field of pollution control, Engleke ventured into his own business and used his mechanical engineering degree to patent the first man-safe, dual wall smokestacks. From that patent, a list of additional smokestack products grew, such as multi-flue stacks, single wall stacks and breeching/modular systems, all systems that are still used today.

Engleke was an active member in his community by serving as board president of both the West Essex Regional High School System in North Caldwell, New Jersey, and Montville Township High School System in Montville, New Jersey. He also was involved in bringing the first Catholic church to Fairfield, New Jersey, and was an active member of the Fairfield Elks Club.

He is survived by his wife, Patricia Goodheart Engleke; his two daughters, Catherine Engleke and Donna Engleke Krystofiak; six grandchildren; and a great-grandson. He was predeceased by his son, Raymond.

**'60** Nov. 15, 2017 — Here's some news from Florida from Frank Carr.

"Don, It's been maybe a half-hundred years, but I thought I'd drop you a line. Just read the latest *Indicator* and glad to hear you are recovering from your cardio issue.

"For you Northerners, you may have heard a little bit about Irma visiting us down here in southwest Florida. **Buddy Roedema** and I live about 15 miles apart, but we're both along the coast and both were in the projected paths of the hurricane.

I say paths (plural) since NOAA had a path for every direction. Anyway, we both suffered minimal damage. Buddy rode it out, but we departed on a pre-planned family visit to Georgia and South Carolina some five days before Irma hit here. We were joined by several million others with the same idea so it was a brutal drive northbound on the interstate. We've flown my airplane to South Carolina dozens of times in the past, but due to the aging process I've stopped flying instruments cross country, and I have to say a 20-hour drive stinks, especially compared to a 4.25 hour flight.

"I look forward to your column each *Indicator*, best wishes to you and yours, and best wishes to all the Old Guard of the Class of 1960. Frank Carr."

To Frank: Your email is a blessing and will form the basis for my next class log.

Our younger son, **Stef M.S. '98**, and family live in Pembroke Pines, Florida, about half way between Miami and Orlando. They did not sustain any damage from Irma.

Stef is currently in Afghanistan with the State Department. We can't wait until his tour of duty is over.

I understand there is an active Stevens alumni club in Florida. Let me know if you have participated with them. I am in cardio rehab and doing ok. I will be 80 by the time of the next *Indicator* and, as you know, as you age everything falls apart, piece by piece.

Another note in my email from **Bob Erler**: "Hi Don, I read your article in the Fall '17 *Stevens Indicator* and felt compelled to tell you that this Class of '60 alum is still on the right side of the sod and still working. I retired from the bench in 2013 after 19 years as a magistrate in the State District Court. I do divorce mediation now because I am a glutton for punishment. I enjoy your articles. Hope your health continues to improve. Bob"

I look forward to your emails. — **Donald Merino**; [dmerino@stevens.edu](mailto:dmerino@stevens.edu)

**'62** Editor's Note: The Fall '17 class log, which recalled Alumni Weekend '17 and the class' 55th reunion, listed the attendees but forgot to include **Bernadette and John Eilertsen**, who traveled from the Buffalo, New York, area for the weekend. Many thanks for attending, John and Bernadette, and we are so sorry for the omission!

Oct. 30, 2017 — Today the near-hurricane-force winds in New Hampshire have stripped most of the leaves off our trees, which means once the rain has stopped, I'll be out raking! That's OK, though, because at least our sailboat is safe at home in its boathouse and ready for the expected colder-than-normal winter. With that, it's now on to other class member activities.

**Alex McKenzie** sent a note the other day saying, "Kathy and I spent the summer months driving back and forth across the northern U.S., putting a total of 14,895 miles on the car in the process. We left Sarasota, Florida, for a family reunion (descendants of my mother's parents) in Pennsylvania in late June. Then we visited some friends and some tourist spots on our way to another family reunion (descendants of Kathy's father's oldest sister) near Chicago in early July. From there, our trip took us to the Black Hills (South Dakota), the Craters of the Moon (Idaho), the Oregon Coast, Lake Chelan (Washington), Glacier National Park (Montana), the Beartooth Highway (Wyoming/Montana), a month in Rockport, Massachusetts (where we used to live), Indianapolis, Indiana (our grandchildren), and then home to Sarasota at the end of September. As we crossed the Florida line coming south, the odometer on our 2006 Honda CR-V turned over to 200,000 miles. For my last birthday, I received a wonderful book called *Atlas Obscura* and in it I found a number of unusual sites to visit on the trip, including Carhenge (a copy of Stonehenge made from



Left: Faithful Old Guard Luncheon attendees, gathering last fall, included, from left, Ken DeGraw '57 and his wife, Helen; Tom Moschello '63; and Penny and Joe Weber '64. Right: Charlie Perruzzi '63 meets SAA Legacy Scholarship winner Katherine Tirabassi, Class of 2019, at the fall Scholarship Luncheon.

old cars) in Nebraska, and The Fremont Troll (a concrete troll, under a bridge, munching on an actual VW Beetle) in Seattle. We also visited several old friends, many of whom I had not seen for a long time. These included Julie and **Mike Vallidis** in Seattle. The last time I saw Mike was in Aachen, Germany, in the summer of 1962. Mike was spending the summer with a Greek cousin studying in Germany, and I was bumming around. I spoke English, Mike spoke English and Greek, and the cousin spoke Greek and German. My conversations with Germans through two levels of interpretation were 'interesting.' Here in Sarasota, I'm in contact with Lyn and **Tony Mirabella**, who live in nearby Venice, Florida. Tony and I both have sailboats in Venice, and both of us were in New England when Hurricane Irma hit Florida. We feared our boats would be destroyed, but they came through with remarkably little damage when Irma turned inland 100 miles south of here, rather than 20 miles north as had been predicted. Best wishes, Alex"

You may recall that **Mike Pellett** was developing an animal shelter in Pennsylvania. Well, the good news is that it's finished as he related in a recent email: "We are here in the mountains of Western Maryland, in a rural county of farms, lumber and coal. This past year, we finally completed construction of the HART Animal Center for which I had the joy of creating the conceptual design, fundraising and managing the construction. The facility was built with \$3.1 million in private donations and grants because the county was unable to fund it. Our five children are now spread all over the U.S.A. but doing well. If there are any animal lovers in the class, we need help in supporting the adoption program, which is no-kill and currently houses 27 dogs and 30 cats and kittens. See us at [www.hartforanimals.org](http://www.hartforanimals.org)."

And lastly, a nostalgic update from **John Lupi**, who wrote, "Kristaps Aldins is Stevens' head baseball coach. Coach Aldins keeps the alumni informed regarding the team's progress and performance. Under Coach Aldins, from 2012-2016, the Stevens baseball team had five back-to-back winning seasons, and he recently wrote to me that, also per the *Stevens Baseball Record Book*, the last time Stevens baseball enjoyed five consecutive winning seasons was from 1958-1962, more than 50 years ago, under coaches Frank Misar and Jim Singer. I was surprised and responded to Coach Aldins that I was a member

of the 1959-1962 teams. The coach has asked me a number of times to attend a game. On Oct. 1, 2017, I went to Stevens to watch Stevens alumni versus Stevens alumni, a different format than our alumni baseball game which was Stevens varsity versus the alumni. What a great turnout he had, with well over 30 ballplayers and many recent graduates. They played excellent baseball. I was also impressed with the facilities; the field is all turf and they also have dugouts, while we had only benches. I expressed concern that the bases sit on turf and not dirt like most major league parks. I was also surprised at the schedule. In spring 2017, Stevens' record was 19-23, 42-plus games; in 1961 we played 12 games with 9 wins and 3 losses. The present varsity team has about 40 baseball players and the baseball picture in the 1962 *Link* shows about 15 players. There have been some major changes in college athletics in the past 50-plus years. I saw great baseball, good people, a great coach and a wonderful barbecue."

Many thanks to Alex, Mike and John for their updates. Remember to drop me a line by email about what you've been doing. Include some photos of your family activities, trips, hobbies, etc. I'd be more than happy to include them in future class logs. — **Philip B. Kimball, 25 Barnett Hill Road, Walpole, NH 03608; (603) 313-8732; [pkimball@seaperch.org](mailto:pkimball@seaperch.org)**

#### Alumni Weekend reunion, June 1-3, 2018

'63 Nov. 1, 2017 — Hi Guys, It's been a slow summer for the email writers and I don't have much to report.

Really good news is that **Tony Ippolito's** nephew (Tyler Sulsenti, Class of 2020) received a Class of '63 Scholarship! Most of you know that the class scholarship fund shows preference for relatives of our class, and it's nice to see it doing some good.

At the fall Old Guard Luncheon, **Tom Bentley, Pete Manahan, Dick Magee, Tom Moschello, Charlie Peruzzi, Joe Polyniak**, honorary member Anita Lang and I enjoyed an excellent meal. Unfortunately, we lost our title of having the greatest Old Guard class representation at the luncheon (we were second), and it was only with great restraint that Magee didn't ask the winning class for a recount and certified class member

identification.

One of the topics at the luncheon was the upcoming Alumni Weekend on June 1-3, 2018, and the Reunion Committee is at work planning some events that will make the weekend special.

In one way, the lack of contact is good because it lets me pass on **Mike Delevante's** note that had to be left off the summer issue because we had so many letters. Mike wrote, with a little editing, "So I am chugging along with clients who want to make whiskey, rum and other spirituous beverages. Not a profitable endeavor but it keeps my brain active; the body is not what it used to be. I have a client in Austin, Texas, about to start a bourbon still that I designed, a potential rum maker in Grand Cayman, a brand of rum sold in Canada which comes from a distillery in Florida that I visited back in 1970 and was almost employed at in 1977. I also have a potential client in England and one in California. My active work right now is developing spiced rums for one of my clients which I do in my basement. My doctor says I am pre-diabetic so I have cut out many sugary treats, which is worse than giving up smoking 30 years ago. I guess I am also pre-death, neither option is desirable. He prescribed an echocardiogram a few weeks ago, and has not phoned me with the result so I am hoping that he has not gone on holiday and forgotten to call. I take the silence as a good sign. Hope it is not like the doctor who called his patient with good news and bad. The doctor said the good news was that he had 48 hours to live, the patient asked what could be worse, the doctor said, 'I've been trying to reach you for the last 24 hours.'"

On the subject of medical stuff, both of my new knees are doing great. Eight weeks after the last replacement, I did 20 miles on the road bike and there was no knee pain. (Tired muscles from being on vacation, but no knee pain.)

In prepping for this issue of the log, I talked with **Joe Polyniak** about the dearth of news and he said I could write that he enjoys watching his grandchildren play soccer. We also enjoy watching ours and, unlike the New York Giants, they made it to the playoffs!

One last note, after numerous frustrations with ATT, including being locked out of email this summer while in Europe, I've changed my email address to [nevsachseng@gmail.com](mailto:nevsachseng@gmail.com). Please update your address book.

Again, thanks to all of you who have contrib-

uted to the Class of '63 Scholarship Fund, and we hope to see you at the reunion in June. Nev  
— Neville W. Sachs, [newsachseng@gmail.com](mailto:newsachseng@gmail.com)

**'64** Oct. 31, 2017 — Dear Class of '64: I received the following communication from **Pete Astor** for inclusion in this issue of *The Indicator*: "Before I left for a vacation to North Carolina this summer, I decided to see if Dr. **Nicholas Rose '45** was still living in Raleigh. Classmates might remember Professor Rose as the head of the mathematics department at Stevens while we were there. My attachment to Nick is closer, however. He was my Ph.D. adviser when I was in graduate school in the mid-'60s. In 1968, just as I was getting started on the dissertation, Dr. Rose announced he was moving to become the head of the larger math department at NC State University. I wanted to work with him, so I asked if there was a job opening at NC State. To my delight, he said yes. My wife and I moved there, and stayed two years while I finished. Well, this is 50 years hence. There have been intermittent emails, but I hadn't seen him. I checked, and found out he and his wife Muriel, of so many years, were living at a retirement home on the outskirts of the city. He invited me to stop by and pay him and Muriel a visit.

"The Springmoor retirement community is a sprawling facility, catering to independent living, assisted living and nursing care living. There must be hundreds of residents. My friends and my wife Harriet and I checked with an employee. Without a blink, he knew Nick and his wife, and knew where they were at this moment. Apparently, Nick is well-liked and familiar to staff. Even at age 93, he regularly walks between buildings

with the help of a walker. There are hills, and it amazes me how well he must negotiate them. Entering the lobby, I spied Nick on a fluffy chair opposite the entrance. He rose to greet us. Although older, he still had that glint in his eye that betrayed a mischievous nature beneath the solid, serious exterior I remember so vividly. He embraced both Harriet and me warmly, and was gracious to our friends. We spoke of our associates at Stevens when we were there — graduate students Richard Bronson, August Ruggiero and Tony Keeping — and his teaching friends — Anthony Ralston, Myron White, Ainsley Diamond, David Hill and Paul Ritger — whom he still talks with. Harriet and I went with him for a visit with Muriel. The affection between them was evident as he introduced us. 'Mama,' he said, 'You might remember my student and his wife from the early days at State.' Whether she did or did not remember, I'll never know, but she showed her southern hospitality with a bright and breezy, 'Of course.' We chatted and took pictures. I gave them old photos from our issue of *The Link*.

"Nick told us he had stopped teaching only a couple of years before, but would have continued if they would have let him. I'm sure he would still have made calculus fun for today's undergraduates, something only a techie would say. Upon leaving, he embraced us again. I felt humbled by my reconnection. I was glad I did it. I think Nick felt the same."

Peter, our class president, attended a luncheon honoring the recipients and donors of various scholarships. Our Class of 1964 Scholarships were given this year to the following four first-year students:

Brynn Froehlich is a freshman in the environmental engineering program from San Diego, California.

Elizabeth Hildebrandt is a freshman in the biomedical engineering program from Mastic Beach, New York.

Robert Roettger is a freshman in the computer engineering program from Brick, New Jersey.

Brian Tseng is a freshman in the finance program from River Edge, New Jersey.

Here's more information about Roettger, who is also an

Eagle Scout.

"I became interested in the field of computers and computer engineering earlier this year when I constructed my own personal computer from parts I purchased from online computer hardware websites. The enjoyment I had working to pay for each of the parts, researching and ordering each one individually, and the challenges and compatibility issues I overcame to finally boot up my computer for the first time, helped me to realize that this is something that I would like to go into as a career field.

"I am hopeful to graduate with a master's degree in engineering, as I am planning on participating in the 4+1 master's program here at Stevens. As a freshman, I am still unsure of where exactly I want to work and which field I wish to work in, but I am confident that I would prefer it to involve computers or something computer language-based.

"Receiving this scholarship allows me to focus more on my studies in my subsequent years at Stevens and will diminish the amount of student loans I will have to pay back once I graduate. This scholarship has allowed me to attend Stevens, and I have the opportunity receive a higher level of education at this institution. I deeply appreciate being awarded the Alumni Class of 1964 Scholarship."

Peter has promised to share more information about these students' accomplishments and interests as they become available.

Peter writes: "Thanks again to those who supported our class endowment, which is now approaching one million dollars. Because of your support, we have been able to support more students. We encourage those who have not yet donated to send in a check to support the Class of 1964 Scholarship Fund. The returns are found in real people."

And from **Fred Zierold**:

"Folks...I guess old engineers aren't into this Facebook thing? I just joined up a few weeks ago, primarily to follow my children and my grandchildren. The youth of today seem to love Facebook, and I find it's an easy way of keeping up with them and their friends. It would be nice to have more of our classmates get on board. I find it fascinating how accomplished our classmates have been, and I would like to keep in touch with them. Fred Zierold."

Echoing Fred's words, if anyone in our class



Peter Astor '64 meets Class of 1964 Scholarship winners Brian Tseng, left, and Robert Roettger. Read more about the Class of '64 Scholarship winners in the '64 log.



Rich Seeley '66 captured this extraordinary photo of a pair of polar bears from a ship near Svalbard, Norway. Read more in the '66 log.

is on Facebook (I am and pretty sure others are also) and would like to communicate this way, please feel free. We need your input to keep the class log up to date and the members informed and viable. Please contact me.

For me, I became a grandfather in March and am loving it every day. I am continuing my volunteer work at the local hospital emergency room and as emergency manager for the City of Bristol, Connecticut. It keeps me off the streets and busy. What are you doing to keep busy? — **Harley G. Graime**, [hgraime@att.net](mailto:hgraime@att.net)

**'65** Oct. 30, 2017 — Greetings to all classmates and other possible readers of this log.

It seems a bit strange to be finishing this the day before Halloween knowing that you will not receive it until late January 2018. So, I hope you had a Merry Christmas and a Happy New Year and all the other holidays in between Nov. 1 and when you read this in time for Presidents' Day in February 2018.

Continuing about the not-quite-so-near future, I thought about Alumni Weekend 2020. It will be the 55<sup>th</sup> Reunion for the Class of 1965. It will also be 150 years since the founding of

Stevens. We could make it a double celebration, as I am sure Stevens will have planned additional special events.

Our 50<sup>th</sup> was very successful, with good attendance, several opportunities to meet and socialize, plus a very successful fundraising effort for the Class Gift. In the months leading up to Alumni Weekend, **Tullio Pitaro**, fraternity brothers and I had contacted almost all classmates so we know that some could not attend in 2015 due to health issues, conflicting travel plans, 50<sup>th</sup> wedding celebrations, actively moving from one state to another state, or some other good reason.

That is why I am asking you to save a slot in your calendar for the first weekend in June 2020. I know it is two and a half years away, but engineers might like to have a chance to plan ahead rather than needing to meet a deadline of yesterday. You will receive information in due course.

For your information, the following students have been selected to receive a Class of 1965 Scholarship for the 2017-2018 academic year:

1. John Henrich, a junior in the mechanical engineering program from Woodcliff Lake, New Jersey.

2. Paul Moyer, a junior in the biomedical engineering program from Long Valley, New Jersey.
3. Ashley Peck, a sophomore in the environmental engineering program from South Windsor, Connecticut.

Additional information of interest: Ashley is the granddaughter of **Daniel Peck** and Paul is the grandson of **Henry Troy**! The director of stewardship at Stevens stated, "We are trying to increase our efforts of making awards to students with legacy at Stevens."

I made contact with **James "Jim" Griffin**, who in 1978 went to work in Milan, Italy, then England, Egypt, Spain and then back to Italy, where he now lives in Colico, a town on the shores of Lake Como. He has been back to the U.S. three times this year and he enjoys driving around Switzerland, Liechtenstein, Austria and Germany, as well as widely through Italy. He visited us in Marblehead, Massachusetts, and I hope he will save some time for Alumni Weekend in early June 2020.

My year has been centered on knee replacements. One in March and the other one in June. Recovery was good, and I am back playing Senior Social Doubles Squash. The emphasis is on SOCIAL.

I welcome all emails and phone calls from classmates, but until the next *Indicator*... Cheers — **George W. Greene**, [gwgrene43@hotmail.com](mailto:gwgrene43@hotmail.com)

**'66** Nov. 1, 2017 — **Rich Seeley** reports in about Svalbard, polar bears and the Arctic:

"Hi Steve: This was one week of a multi-week adventure traveling in Norway with wife Beth and friends who live there. Norway is beautiful country with beautiful people and has recently been rated the happiest country on the planet by a 2017 United Nations report. If you have not been there already, then put it on your bucket list.

"Not many people have heard of Svalbard, Norway. It's in a remote part of the world. It is 700 miles north of the Norway mainland and 800 miles south of the North Pole. It's an archipelago of 2,300 glaciers and one town. The town is Longyearbyen and is considered to be the most northerly town on the planet at 78 degrees north latitude. Because of the permafrost, it is illegal to die in Svalbard. The bodies do not decompose. The last body to be buried on the Longyearbyen

cemetery was in 1940.

"My photography adventure started in Longyearbyen in August 2017, where I boarded a 45-meter Swedish coastguard ship outfitted for wildlife touring. We were searching for photographic opportunities of seals, arctic foxes, reindeer, walrus, whales and, most importantly, the polar bear. We sailed for eight days through wind, rain, fog, sunshine, calm seas, heavy seas, all around Svalbard, in fjords, in bays, around islands, on islands, near glaciers, as far north as 82 degrees north latitude, all in search of the elusive polar bear. Bears would be sighted from the ship and the Zodiac cameras would be launched in minutes. We could approach quite close, as close as 25 meters at one point. With professional gear, including telephoto lenses, we were able to get some amazing images.

"I returned to Longyearbyen a very happy photographer. It was one of my most amazing photography adventures ever. I now have an unquenchable thirst to return to Svalbard next summer to do it again. For my Svalbard images, just Google: richard seeley photography svalbard. Best Regards, Rich Seeley"

You can see more of Rich's work at [www.richardseeleyphotography.com](http://www.richardseeleyphotography.com) and [www.richardseeleyphotography.wordpress.com](http://www.richardseeleyphotography.wordpress.com).

As for me, I'm sort of at a loss. I sent out a request for updates to my class email list of 125 guys. And I got one response. Come on guys, I KNOW that you are not that boring. Let's really try to do better next time.

Best, Steve — [Stephen W. Fields, Steve. Fields@mac.com](mailto:Stephen.W.Fields,Steve.Fields@mac.com)

**'67** November 1, 2017 — With the rousing success of our 50<sup>th</sup> Alumni Weekend this past June, in which 31 members of our class joined in the festivities, email correspondence to your class secretary shrank to zero. Anita Lang, former executive secretary of the Alumni Association, made a special visit with us; that was fun, seeing her again for the first time in years. I suspect that many of us are still recuperating from the wine, women and song. Melinda and I had a wonderful time, made especially grand with a pre-weekend Sigma Nu evening at Peter Gollobin's palace on Long Island.

So, I took the unremarkable strategy of sending emails to a slew of those who did not make it to the Alumni Weekend, asking for updates

on their lives. Perhaps not unexpectedly, not a single one of them responded. There may be a correlation between participation in our 50<sup>th</sup> Anniversary and a lack of interest in writing their class secretary and seeing their story appear in this column. Nonetheless, I was and am sorry to experience and report on this apathy. And I do miss many of our missing classmates.

Lacking information about you all but desirous of maintaining my record of continuous reporting for 50 years (with exceptions during my sabbatical year 1983-1984 in England, where apparently there was neither paper, pencil nor postage stamps), my fallback position is writing about myself.

I am living second personal and professional lives. After being a bachelor for many years, I report being with Melinda going into our sixth year (though still being a bachelor). She deserves a medal, and I may just give her one for Christmas. My son Jonathan and his wife Lauren have two girls; my daughter Brooke and her husband Sean have two boys. (There's some type of symmetry there.) They all are happy and fulfilled parents and citizens. And self-supporting, a worthy aspiration. I took a very early retirement from Philip Morris, where I was a research chemist for several decades. My last major assignment was studying the claims that tobacco ingredients manipulate nicotine deliveries to smokers. I published ten papers on that subject in major peer-reviewed journals (no, there is no such thing as nicotine manipulation by tobacco ingredients).

That was a fascinating experience, dealing firsthand with such topical and controversial issues. We now read too, too much about junk science, advocacy, and the meaning to truth. I was right in the midst of that in the 1990s and early 2000s.

I now have a courtesy appointment in the Department of Chemistry of the University of Richmond. I have become what I apparently was always best suited to be: an academic. Now, instead of tobacco science, I am a historian of chemistry. I also study responsible conduct of research and sociology of science. I am researching, publishing and lecturing with great vigor. In fact, in the past five years, I've published almost 40 papers! When I am asked, as I am often, why I work so hard, I usually respond that I'm hoping to get tenure this year. The typical response is, "Good luck!" And then I smile. Of course, tenure at this stage of my life — of our lives — is more a matter of mind than anything else. For those of you who are interested in more details, see: <https://chemistry.richmond.edu/faculty/jseeman/>. I am happy to send reprints (as pdfs) of any of my papers upon request!

This year, I received two awards for lifetime achievement in the history of chemistry from the History Group of the Royal Society of Chemistry (London) and from the Division of History of Chemistry of the American Chemical Society. At an upcoming award ceremony and symposium, I am delighted to report that my daughter Brooke will discuss her experiences in being a pharmaceutical investigator and compliance officer with



Jeff Seeman '67, third from right, and his children and grandchildren gathered for Thanksgiving in 2016. From left are Jeff's son-in-law, Sean, holding Jacob, with Jeff's daughter, Brooke, holding Evan; Jeff's son, Jonathan, holding Julianna, and his wife, Lauren, holding Kathryn.

the FDA, and that my daughter-in-law Lauren, a Ph.D. in education from the University of California at Irvine, will talk about methodologies for developing the next generation of scientists and science educators. I will be in the audience, gleaming with pride and joy. From generation to generation, how sweet it is.

I hope to return with information about your lives in the next *Indicator*! Be well, be happy.  
— Jeffrey I. Seeman, [jiseeman@yahoo.com](mailto:jiseeman@yahoo.com)

**Alumni Weekend reunion, June 1-3, 2018**

**'68** November 1, 2017 — This log will be coming out in the winter issue of *The Indicator*, but it's not too early to be planning your trip to Hoboken for Alumni Weekend, June 1-3, 2018. It's our 50th anniversary year from graduation and there will be special events organized for our class. The Reunion Committee, consisting of Stan duBrul, myself, Michael Hollander, Jay Gassaway, Andre Jackson, Rod Kurtz, Steve Stein, Mel Thor and Marty Valerio, have begun planning for the weekend. You should have received a letter in

November announcing the weekend, and by now you should also have been contacted by one of the committee members to determine your interest in attending.

Now on to some class news: **Ben Forbes** writes: "Unfortunately, we all go our own ways and I have not seen or heard from any Techies in a long time. So with a huge reunion coming up I wanted to reach out. First, let me clarify my confusing aliases: sometimes listed as John B. or J. Benjamin, but better known as Ben or to many in the Lodge as Doc Forbes. That nickname was prophetic, as I did go on for a Ph.D. and had a great career as a college professor.

"My wife, Lark, and I are both happily retired and still living in Northeast Ohio. We have two amazing sons: a Ph.D. engineer living in Maryland with his wife and son, plus a police detective in Charlotte, North Carolina, along with his wife and daughter. As you can imagine, we are on the road a lot visiting our growing family! But we also have had time for some other fun trips including fall foliage gazing and wine tasting — last fall along the Finger Lakes and this fall up to the Thousand Islands. At Christmas time, we

visited Biltmore in Asheville, North Carolina, for its amazing decorations (and some of their wine, too).

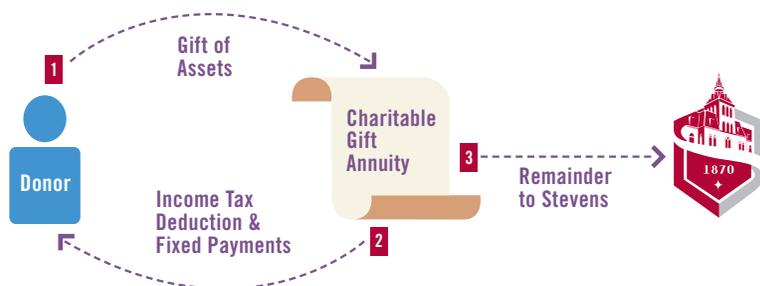
"Most recently (June 2017) we checked off a major bucket list item — a fun and very impressive nature appreciation trip to San Francisco and Muir Woods (Redwoods), then Sequoia National Park and, the most amazing, Yosemite Valley after a winter of record-breaking snow (too much to adequately describe here!). To hear more, email me at [forbes@jcu.edu](mailto:forbes@jcu.edu). Hoping to make contact with a few friends and acquaintances..."

Ben indicated he planned to attend the weekend. Raoul (Stan) duBrul, one of our Reunion Committee members, writes, "While talking with Al Foytlin about our 50th Reunion at the 2018 Alumni Day, I offered to write part of this edition of the log to bring everyone up to date on my efforts and encourage attendance. I'm really looking forward to seeing my 1968 classmates next June 1-3, and I want to maximize our turnout. I even joined our Reunion Committee this past summer. What better way to spend my retirement time than talking with my old classmates to encourage attendance, then visit

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with everyone in Hoboken in 2018? As of this writing, I've talked with over 35 classmates from a list of approximately 200 available classmates. Extrapolating the 'yesses' and 'maybes' implies we could have 100-plus fellow alumni plus almost as many guests.

"I wasn't surprised that many classmates are retired. Several said that they 'occasionally' return to their office despite their retirement (Is it only bad golfing days?): **Dave Knebel**, **David McQueen**, **Tom Kornylak**, and **Jay Gassaway** (online instruction). Still others continue to work at least part time, if not full time: **Norm Dotti**, **Marty Valerio**, **Mel Thor** and **Bruce Friemark**. During other calls, I never learned if they're retired: **Alan Brooks**, **Joe Entwistle**, **Bill Kornylak**, and **Dan Weintraub** — if you want to know, be sure to ask them at our reunion. During calls, I also learned that **Bill Blazowski**, **Bill Ellis**, **Tim Taylor**, **Glenn Townley** and **Len Skoblar** are all retired. Len and I agreed that we were lucky to be in the nuclear power industry at the right time. We had worked together several years ago at the St. Lucie Nuclear Power Plant. Now, as many know, nuclear power is on the decline due to plant age and electric generating economics.

"I was disappointed that I couldn't reach several classmates because of incorrect, missing or out-of-date personal information: **Rich Hooker**, **Fred Faist** and **Bruce Pfeffer** — where are you? I tried to reach several by leaving phone messages and/or sending emails but they never got back to me: **Jim Saldarini**, **Bill Moffett**, **Paul Flanagan**, **Don Gobeille**, **Al Galinsky**, **Bob Kovarcik**, and **Bill Luckert** — I can only assume they don't use the phone or email; so, where are you? If any classmates know their whereabouts, let the committee know or call them yourselves.

"Remember: Saturday Morning Science Hours are a thing of the past, so you'll be able to party hardy with us for the weekend. Be there or be square!" — **Allen A. Foytlin**, [foytlin01@gmail.com](mailto:foytlin01@gmail.com)

**'70** November 1, 2017 — In late August I decided to try and reach some of our classmates who I knew lived in Houston and areas of Florida impacted by the hurricanes and the flooding in Houston. **Rich Stack**, who lives in Sugar Land, Texas, responded, "Incredible rain here with 20 inches so far. Our subdivision is high and dry with a big levee between us and the Brazos River. The



Class of '68ers reunited at the Houston Alumni Club's "State of Stevens" event last fall. From left are **Walter Ulrich**, **Andre Jackson** and **Al Foytlin**.

engineer did a great job!" Rich also indicated he would be retiring at the end of August. He is also teaching a class in construction planning at the University of Houston this semester and had no other big plans. If you go on LinkedIn, you will see Rich has a new position as an adjunct professor. Rich can be reached at [rhstackjr@hotmail.com](mailto:rhstackjr@hotmail.com).

**Rhea** and **Marc Levin** planned to ride out the hurricane in Tampa, Florida, a first for both of them. Marc said all good wishes were gratefully accepted. He can be reached at [mrx2jl@gmail.com](mailto:mrx2jl@gmail.com).

**Louise** and **Steve Feller** are in Southeast Florida and said they were good, only losing power and Comcast and lots of tree damage. Steve can be reached at [sfeller@fellerpe.com](mailto:sfeller@fellerpe.com).

I also heard from **Jack Lipinski '72**, who lives in the Houston area. He mentioned he fared well, as his home is on high ground. He also had to deal with Irma as well, as he has a home on Kiawah Island, just south of Charleston, South Carolina. He lost some walks to the beach but no other damage.

**Gabe Costa** sent in a picture of him and **Frank Bal**. Frank's grandson, **Antonio La Torre**, is a

newly accepted cadet at West Point. This picture was taken in front of Most Holy Trinity chapel on the day Antonio completed his Cadet Basic Training. Gabe also met Frank's wife and daughter, and it seems that Antonio's brother, **Francesco La Torre**, may ALSO come to the USMA in the future! Gabe can be reached at [Gabriel.Costa@usma.edu](mailto:Gabriel.Costa@usma.edu).

**Donn Viviani** let us know, "Thanks for taking care of this for all these years...when I saw no one had written anything for the last log, I figured I'm up. After Tech, I got a chemistry Ph.D. at GWU. I shared a house with **Bob Kayser**, who got his Ph.D. from Georgetown (we thought we were applying to the same 'George' but ONE of us screwed up). We both worked at the EPA until retirement. Bob and his wife Julie retired to Cape Cod, Massachusetts, in babysitting distance to his four, soon-to-be-five, grandkids.

"Annie and I have four kids and three grandkids. None went to Tech, three to Berkeley, but one did run track and cross-country for the Ducks! But it was the less famous Oregon



**Ed Eichhorn '69** celebrated his 70th birthday last August with his family, above left, and his Stevens friends/golf buddies/fellow Delts, above right. In the Stevens photo, from left, are **Gerry Crispin '69**, **Joe Garvey '71**, **Ed Eichhorn**, **Armin Steuber '66** and **John Dalton '60**.

ones. Annie and I spend our time, when not with the kids, racing triathlons and other multisports on the national age group teams. 2017 was a good year. I'm the 2017 national aquathlon champion (running and swimming) and took bronze at the world championship in Canada. Annie was world long-distance triathlon champion...again... beating me by over an hour in the 100-mile race...she won bronze at nationals in both duathlon and aquathlon. It's clear who has bragging rights in our house.

"We live in Arlington, Virginia, or Boynton Beach, Florida, in the winter. Stop by for some of Annie's homemade pizza if you're in either place...contact me on Facebook (there's only two Donn Vivianis...I'm the 70-year-old one) to make sure we're home."

Donn can be reached at [donnviviani@yahoo.com](mailto:donnviviani@yahoo.com), and I may take him up on his offer.

We also heard from **Henk Ruck**. "Elaine and I built our retirement house in Elizabethton, Tennessee (her hometown). We moved from

Ohio to Tennessee last March and moved into the new house in July. I've been managing government contracts for a small software firm in Dayton. Working something less than full time, and traveling back and forth periodically. My most exciting news is that I've been appointed to the Air Force Studies Board — it's administered through the National Academy of Sciences and reports to senior AF leadership. With regards to personal info, our sons both manage restaurants in Las Vegas and our granddaughter just started freshman year." Henk can be reached at [henkruck@msn.com](mailto:henkruck@msn.com).

An update from **Jeff Katz** was, "I'm running seven major projects at PSEG and want to see them through before retiring. I just finished up a two-year stint as chair of the Union County College Foundation Board of Trustees and I'm still on the college's Board of Governors. Then, there's the private law practice, which keeps me off the streets some evenings. I did retire from law enforcement, though, and hung up my spurs

in August 2015 after 47 years of service. Sharon retired from teaching a few years ago and enjoys being a substitute teacher in two school systems. Sharon also is the annual scholarship gala chair for the UCC Foundation. Our daughter, Stacey, and her family are 20 miles away in Bridgewater, New Jersey. Grandsons Jack, 9, and Max, 4, keep us hopping. Our son Justin is 2,000 miles away in Phoenix running his own motion graphics business called Flock of Pixels. He travels often and spent almost three months in Europe this past summer. Justin has won 13 Emmys for his work. Until I saw a recent Emmy awards program booklet, I did not know that our classmate, **Chuck Dages**, is the president of the National Academy of Television Arts & Sciences. Sharon and I were able to get away to our timeshare on Paradise Island, Bahamas, for a week in August. We'll be back there in February with our daughter's family to take advantage of all of the Atlantis properties." Jeff can be reached at [Jeffrey.Katz@pseg.com](mailto:Jeffrey.Katz@pseg.com).

Thanks for all the information. Please keep it up so no shaming will be needed. The best of health and wishes to all. — **Eugene A.J. Golebiowski**, [eagolebiowski@att.net](mailto:eagolebiowski@att.net)

**'71** Oct. 31, 2017 — **Ralph Cohen** missed the 45<sup>th</sup> reunion although he was in New Jersey this summer. He made a now or never, mostly solo, six-week, 9,500-mile, cross-country motorcycle odyssey from Portland, Oregon, heading to Baltimore first, with Stevens alumni stops in Delaware (visiting Carol and **John Schroeder**), and in Toms River, New Jersey, for **Steve Bistak's '72 "last" waterside July 4<sup>th</sup> party**. It was then on to a little sight-seeing in Brooklyn, then a swing through the Poconos, Ithaca, along Lake Erie, Detroit (visiting his daughter), Chicago (visiting Maryann and **Dan Rusinak '67**), and a tour of Wisconsin (including the Harley Davidson museum). Heading west, he visited Mt. Rushmore, Yellowstone, Grand Tetons, Craters of the Moon (Idaho), and finally made it across glorious eastern Oregon. He rode east along U.S. Route 50 through the Nevada and Utah deserts in 95-degree heat, over the Monarch Pass in Colorado, then got some relief in the humid and thunder-stormy mid-west of Kansas through West Virginia. His general impressions were the vastness and variety of the landscape, profusion



Class of '70 friends Frank Bal, left, and the Rev. Gabe Costa met up at West Point, where Gabe is a math professor and chaplain and Frank's grandson a new cadet.

of giant wind turbines and the overpowering stench of feed lots in Kansas, as well as the crush of humanity in metro New York City and Chicago, compared to the emptiness of Nevada, and the friendliness of people in small towns.

The rest of Ralph's year was an amalgam of consulting engineering (12<sup>th</sup> year as a one-man, part-time operation), president of the local chapter of Professional Engineers of Oregon (affiliate of NSPE), maritime museum docent (fully functional steam-powered tugboat "Portland" with 1000 hp B&W boiler and sternwheel), fiddling in a community orchestra, and building/truing wheels at a bicycle cooperative.

Joy and Phil Winkler survived Hurricane Irma with minimal damage to their Villages, Florida, house. They travelled to New Jersey in September to attend Phil's 50<sup>th</sup> high school reunion at Hackensack High. They even got together the night before with 20 of his grammar school classmates from Rochelle Park. After that, they attended the Stevens "Celebration of Philanthropy" dinner, where they met fellow classmates **Ron West** and **Roger Schatel**, plus former teacher and fraternity brother **Dick Magee '63**. They even had a chat with President Farvardin. Ron and Phil were recognized as new members of the Stevens Legacy Society. It probably helped when Phil opened his checkbook to present Mother Stevens with that HUGE donation check.

"Retirement" finds new opportunities and challenges for us old people. **Jim Morris** was forced to re-retire from Metropolitan Life because he reached the company-allowed maximum of two years of part-time consulting — and chose full retirement rather than a return to full-time work. He has also been fighting off some old-age health issues.

**Joe Moaba** met up for lunch with fraternity brother Bruce Crichton (a classmate who didn't manage to garner that SIT sheepskin). Although Joe's memory was somewhat clouded by imbibing a few great beers from some local micro-breweries, he does remember that Bruce is retired, living in Jacksonville, Florida, and is still active in the Boy Scouts with his grandchildren. Joe was also tempted to come out of retirement when he saw the big "help wanted" banner in front of his local Total Wine store. A final decision on the job was pending as he needed to verify the rumor that the top salesman of the week gets a free case of wine.

**Barry Sherwin** also considered going to work at the local P.C. Richard in its computer department, to see what life as a real geek was like. But his wife Carol was afraid someone she knew would see him in a red vest with a name tag, and she begged him not to do it.

Let me know your retirement activities or second career direction. It's great to hear from new people like Ralph, especially if you have a totally off-the-wall adventure. Only three years until our 50<sup>th</sup> reunion, so reserve that weekend (June 4-6, 2021). No babysitting allowed that weekend and tell your great niece Buffy that you can't make her wedding in Cancun. — **William F. Stengle**, E: [wfs20hlm@aol.com](mailto:wfs20hlm@aol.com)

**'72** (Written collaboratively by Enrique and George — November 2017)

Fellow Classmates: Now that the euphoria of our 45th reunion has worn off, we are faced with the reality of a dearth of material for our class log. So, as Dean Martin used to say, "Keep all them cards and letters coming in." Or, as my 21st century grandchildren tell me, email or text my cell. I'm sure life hasn't come to a complete stop.

On that note, since there is a complete lack of fall color in the trees in New Jersey, Mary and I just took a cruise out of Bayonne to Canada to see the fall foliage. We visited very beautiful ports starting with Boston. I should have dusted off my American history books before going. Our guide gave us some interesting facts I didn't recall learning. Bar Harbor and Nova Scotia were great and the tide change at the Bay of Fundy was impressive. Be sure to see the reversing waterfalls if you visit.

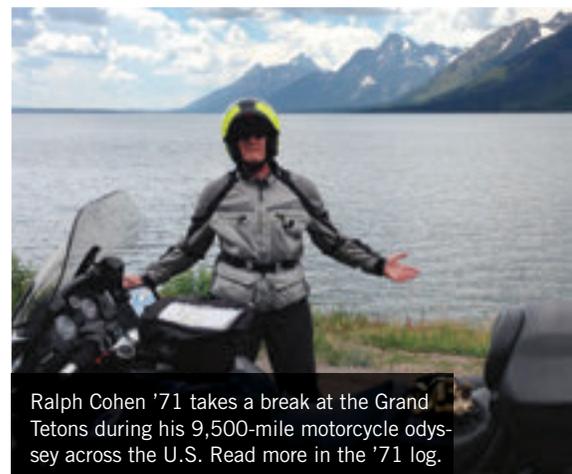
While we are still on the subject of reunions, mark your calendars for the first weekend in June 2022. That is our 50th! We become part of the Old Guard, although I'm sure some of us may feel that way now. Let's fill that Bissinger Room. I promise to have soft foods on the menu.

As I'm sure this log will come out in late January, I take this opportunity to wish all of you and your families a Happy Hanukkah, Merry Christmas and a Happy and Healthy New Year.

Go long, George!

Thanks Enrique! And for the Seinfeld fans, Happy Festivus for the rest of us! But don't expect any "airing of grievances" in the holiday log.

Congratulations to classmate **Jack Lipinski**,



Ralph Cohen '71 takes a break at the Grand Tetons during his 9,500-mile motorcycle odyssey across the U.S. Read more in the '71 log.

president and CEO of CVR Energy, who will be retiring at the end of this year. Jack also served as the chief executive officer and president of CVR Refining, LP and has more than 40 years of experience in the petroleum refining and nitrogen fertilizer industries. **Carl Icahn**, majority shareholder, chairman of the board and entrepreneur extraordinaire, said of Jack, "On behalf of the Board of Directors and stockholders, I would like to thank Jack for his leadership and focus. Over the years, Jack has done an excellent job of building CVR into a world-class company." Jack, we wish you good health and continued prosperity in your retirement.

Now a word from **Billy G.**, our class fund captain, regarding our Endowed Class Scholarship.

"**G Landau** had the opportunity to chat informally with Haijun Ramoundos, the current recipient of our Class of 1972 Endowed Scholarship. Haijun is following in the footsteps of his father, **Augustis Ramoundos, M. Eng. '72**. (M.Eng. '72). He is now a senior, majoring in mechanical engineering, and has his sights set on career opportunities in the automotive industry. We all wish him the very best."

Thanks, Billy G! And thanks to everyone who donated to the scholarship, making it possible to help so many deserving students over the years.

As Enrique mentioned, we very much welcome receiving your messages, updates, and photos. Just do it! Thanks! — **George W. Johnston**, [gwjohnstonjr@msn.com](mailto:gwjohnstonjr@msn.com); **Enrique L. Blanco**, [elbmcb@optonline.net](mailto:elbmcb@optonline.net)

# '74

Guest log from Gary Jung:

Sept. 28, 2017 — “Say not in grief that he is no more, but in thankfulness that he was.” This proverb expresses very well our personal experience and the truth of our classmates: **Harvey R. Greenberg**, who passed away last February, and belatedly acknowledging **Brian William McDonald’s** 2014 passing. We each can reflect on the time we shared with them on campus and in the many years since. Though we may not have spoken to or seen each other in years, 1970-1974 was a significant and very important step forward in our yet-to-be-fully written individual stories. In the words of then-Stevens President Kenneth C. Rogers, “Each member of the Class of 1974 has the proven ability to perform at a high level, and each in his proper niche can contribute substantially in the real world that lies beyond the campus.”

As I read through our log and articles about our class members in *The Indicator*, I am always impressed by the unique and substantial contributions that have been made by those who share their stories.

As class secretary, Harvey kept us connected through each class log for 43 years! He deserves our grateful admiration for his dedication. The final chapter of Harvey’s unique story follows: Harvey R. Greenberg, of the town of Barrington, New York, passed away at home on Feb. 1, 2017, at the age of 64. He is survived by his wife Judi, his daughter Megan, and his sister Lola. He was predeceased by his first wife, Janiece.

Harvey was born in Bayonne, New Jersey, graduated from the Cranford High School Class of 1970, and attended the Stevens Institute of Technology in Hoboken, where he received a Bachelor of Science in mathematics with high



Brian William McDonald '74

honors and a Master of Science in computer sciences in 1974. Through the AFROTC program, he received a commission as a second lieutenant in the United States Air Force.

His first military assignment was as a Minuteman Missile launch officer in Minot, North Dakota, where he also studied business administration, earning his MBA in 1980. His career took him to various scientific and technical jobs, among which was program manager for the E-8C Joint STARS surveillance aircraft. He retired as a colonel in 1996 from Hanscom AFB in Massachusetts and then started a second career in project management and software related to publishing and content management, from which he retired in 2013.

Harvey stayed extremely busy in retirement. His many passions included classical music, cooking, baking, wine, flying, travel, and watching the sunset over Keuka Lake from his beloved home on Dutch Street. He served on the boards

of the Penn Yan Flying Club and the Finger Lakes Chamber Music Festival, volunteered at local wine competitions, and worked as a tasting room assistant at Domaine LeSeurre winery.

Harvey, with gratitude for all you have done, just as the fine wine you enjoyed...you were one of the best who improved with age.

And, the final chapter of Brian’s unique story:

Brian William McDonald of Webster, New York, formerly of Jersey City and Spring Lake Heights, New Jersey, died on Aug. 29, 2014. He was 62.

Born and raised in Jersey City, he was a claims specialist with State Farm Insurance for more than 20 years, before retiring. Brian was a loving husband and father and was a Friend of Bill W.

Brian is survived by his best friend and wife of 20 years, Kate; two sons, Bryan and Gregory; his mother, Jean; his brother, John “Jack” and his wife, Pat; his sister, Renee Weinstein and her husband, Michael; and a host of nieces, nephews, in-laws, cousins and friends all dear to him, but too numerous to mention.

Please share any personal memories about Harvey or Brian for a future log.

The selection of a new class secretary will occur in 2018. In the interim, I will accept your updates and share your stories in each new issue (January, May and September). The class log is submitted two months prior to the month *The Indicator* is published. Let’s use the log to the fullest! Please contact me, Gary Jung, at: Gary@qintexgroup.com or at 610-452-2772, to re-connect, update classmates on your recent activities, or share memories of our life on campus. — Gary Jung, [gary@qintexgroup.com](mailto:gary@qintexgroup.com)



**1** Enjoying the alumni baseball game last fall, from left, are Bob Khalil '94, David Garcia '73, Jayson Yano '15 and Michael Frissora, Class of 2020. **2** A scene from the successful Class of '77 40th reunion last spring. **3** John “Froggy” Murtagh '76, with his three grandsons.

**'76** Nov. 17, 2017 — John "Froggy" Murtagh shared this wonderful update.

"Hi Frank and Tom, I keep promising myself to email *The Stevens Indicator* and give a shout-out to the Class of 1976, and I finally decided to sit down and cross it off my to-do list.

"I have attached a picture of my grandsons Pat, Tom, David and me, reviewing a book on differential equations and discussing the intrinsic beauty of the Laplace transform. (See page 62.) Big Dave was more impressed with the Fourier transform, but his big brothers convinced him otherwise.

"I have been living in Las Vegas since 1988 and started a real estate development company there in 1991. My daughter, Kelly, joined the firm in 1999 after graduating from Boston University. Son John L. came on board in 2007 after he graduated from Arizona State. Kelly and John L. have taken over most of the day-to-day running of the company, now located in Albuquerque, and I spend most of my time at home in Vegas, working with them via video conferencing, and driving my wife of 41 years, Susan, crazy by constantly being underfoot. My youngest daughter, Beth, and her husband Matt and my three grandsons recently moved to Maine from California, and are enjoying the new experience of thermal underwear and shoveling snow out of their driveway.

"I have taken up bike riding, and recently biked from Prague to Dresden with John L., after breaking my arm a few years before that on a bike ride from Passau to Vienna. Only a broken rib on the Dresden trip, so I am improving my bicycle skills.

"Susan and I are planning on taking a trip in the spring to Hoboken, so we can see if Benny Tudino's pizza has improved over the past 40-plus years.

"I hope all is going well with the rest of the Class of '76. — John 'Froggy' Murtagh"  
 — Co-Secretaries Frank Roberto and Tom Errington, [classof1976news@live.com](mailto:classof1976news@live.com)



Harvey Greenberg '74



Stevens alumni employees of the Naval Air Warfare Center Aircraft Division (NAWCAD) Lakehurst gathered for a photo at Joint Base McGuire-Dix-Lakehurst, New Jersey, last November. Pictured, from left, are Ryan Klem '17, Joshua Bloom '17, Darrel Jugarpap '11, Sean Zabriskie '16, Glenn Shevach '10, Matthew Marko '06, Rob Cimler M.Eng. '05, Chris Ecke '03, Dave Peters '77, Veronica Vergara M.S. '16, John Dubolsky '13, Paul Cicolone '16, Juan Rodriguez '08, Pete Worley '06 and George Brennan M.Eng. '15. PHOTO: U.S. NAVY

**'77** Nov. 1, 2017 — Hello again! My gut-level feeling right now is a little like being at the top of one of those big theme park waterslides getting ready to jump into that tube that is the start of the holiday season, knowing that it's going to all happen way too fast and at an accelerating rate. Is that what November feels like for you?

Conversely it seems like the alumni reunion was just a few weeks ago. Needless to say, it was quite a time. I'm going to keep this edition's log a little shorter than usual so there's more of a chance for some of the pictures that we took to get printed in this issue. Hope you enjoy them.

Looking toward the end of the calendar year, we have to admit it was a great year for the Class of '77. You already know that we had approximately 60 attendees at the 40th anniversary reunion, with 40 of them being classmates. (How did you like that picture of all of us in the library lobby? That was something special!)

Class efforts at fundraising were substantial, and including one major gift, the year's total ended up at \$225,000!! The Endowed Class of '77 Scholarship fundraising got started and \$30K was raised. This represented 30-plus percent of the class participating in fundraising. This means we nearly doubled the participation rate in reunion attendance and giving.

On that note, you should know that sophomore Tyler Curtis was this year's recipient of

our class term scholarship. Tyler is an electrical engineering student in the five-year co-op program. Outside of class, Tyler is heavily involved with both robotics and the Ultimate Frisbee Club at Stevens.

One of the very important things that happened this year was that many of you had a chance to reconnect either in person, by phone or by social media. Forty years seemed like a very short span of time all of a sudden! Just so you know, the class officers and the Alumni Office can help you find most of our classmates (160 with mail addresses, 80 responding to our email messages). So what is next? How to keep the contacts expanding? We have one email address to send updates and share ideas at: [Classof1977@alumni.stevens.edu](mailto:Classof1977@alumni.stevens.edu). We are making every effort to repurpose our website: [StevensClassof1977.com](http://StevensClassof1977.com). Our vision is to post links to pics, news and possible mini-events to be promoted by classmates. We are keeping our Facebook (fun and adventure) and LinkedIn (professional) sites alive and current.

Our vision is that "you all" will keep the momentum by reaching out to classmates nearby and distant using these tools. And if you want to host a simple-enough local event (dinner, Back Bay, Boston or even a karaoke event (OK, that one is mine, sorry)), let us know and we'll help share the invite.

Finally, our dream was to make significant

progress toward a Class of 1977 Endowed Scholarship. We are on the path toward the \$100K to have a fully endowed scholarship. Contact Marty Haggerty ([Marty.Haggerty@stevens.edu](mailto:Marty.Haggerty@stevens.edu)) for the “many ways in which to give.”

Depending upon when this issue of *The Indicator* reaches you, best wishes for the holiday and new year 2018.

Don't forget - stay in touch:

Email - [Classof1977@alumni.stevens.edu](mailto:Classof1977@alumni.stevens.edu)

Facebook - Stevens Institute of Technology: Class of '77

LinkedIn - Stevens Institute of Technology Class of 1977

Website - [StevensClassof1977.com](http://StevensClassof1977.com)

All the best to you and yours!! Thanks! — [Paul A. Porzio, eclectichours@cox.net](mailto:Paul.A.Porzio@cox.net)

#### Glenn John Moloney

Glenn John Moloney, of Clear Lake, Texas, an ExxonMobil chemical engineer, died on Sept. 12, 2017. He was 61.

Moloney continued to work as a consultant for ExxonMobil after his retirement in 2013, where he enjoyed working as a chemical engineer for many years.

He was a loving father and husband and a great friend to all who knew him, his family said. He could always be counted on to solve a prob-

lem or help a friend. Above all, he most enjoyed loving his children, his family said, from cheering loudly at soccer games and helping with his daughter Colleen's school projects, to grilling and watching new movies with his son Jonathan.

Moloney enjoyed volunteering with Meals on Wheels and was a member of St. Paul Apostle Catholic Church in Nassau Bay, Texas.

He is survived by his wife of 27 years, Lynn Moloney; their children, Jonathan Moloney and Colleen Moloney; his sister, Karen Moloney; and many other relatives and friends.

#### Alumni Weekend reunion, June 1-3, 2018

## '78

Editor's Note: Jim Weatherall shared this remembrance of Art Harper, who sadly passed away on Sept. 19, 2017. Art's obituary appears at the end of this log.

"In case you were not already aware, please see the sad news at the end of this log about our classmate, Art Harper. He passed away on Sept. 19 after an illness.

"As you know, both Maureen and I were classmates with Art at Stevens in the Class of '78. I remember, when we were seniors together at Stevens, that Art was president of the Gear and Triangle Society. In fact, all three of us were

student leaders. He was very well-liked and respected on campus.

"When he graduated Stevens, he went to work at Conoco, and I stayed at Stevens for my master's. Two years later, I interviewed at Conoco for the same entry job. When I mentioned that I had gone to Stevens with Art, everyone had very good things to say and clearly had great respect for him. It made an impression on me.

"Years later, I spoke again with Art when he was president of GE Plastics in Europe, to ask for his advice about a former GE Plastics new hire that I was considering. It was good to catch up with him, and I appreciated his advice. In fact, even to this day, whenever I run into a former GE Plastics person and I mention that I knew Art, they always tell me of the great esteem and respect they held for him.

"I last saw Art several years back, after he had started GenNx360, when we had lunch together in New York City. I was asking him to join my wife and me, along with Ron Hosie and others, to be a founding supporter of a new scholarship fund that our Class of '78 was creating. Of course, he said yes; in fact, he proposed a challenge grant to inspire more classmates to donate as well.

"I regret that we have not kept in closer touch together since then. I am proud to have known Art, and to have called him a friend and classmate". Jim Weatherall — [John T. Jarboe, jjarboe1@comcast.net](mailto:John.T.Jarboe@comcast.net)

#### Arthur H. Harper

Arthur H. "Art" Harper, a highly successful entrepreneur and business executive who served as a steadfast mentor and supporter of minority and disadvantaged kids, helping them obtain a better future, passed away on Sept. 19, 2017.

Harper was founder and managing partner of GenNx360 Capital Partners, a private equity firm focused on investing in industrial and business services companies in the U.S. middle market. While at the company, he also served as chairman for Vertex North America at Vertex Data Unlimited and chairman of Schramm, Inc.

Before founding GenNX360, he spent 21 years with GE, where he served as chief executive officer of the Equipment Services Division, a \$7 billion revenue global business. There, he was responsible for a portfolio of seven global businesses with operations in more than 19 countries. A true global citizen, he served as president of



Members of the Class of '77 gathered for a reception in Williams Library last spring, as they marked their 40th reunion.



Art Harper '78

GE Plastics Greater China, in Hong Kong, and in Belgium as vice president of global manufacturing for GE Plastics and GE Plastics Europe, India and Africa. Indeed, he helped to oversee the manufacture and distribution of many of the consumer plastics that we use in everyday life, including appliances, water bottles and iPods.

He has also served as a director on the boards of Monsanto and the Gannett Company. Before joining GE, he spent the first six years of his career in various sales and marketing roles with Conoco Inc., and DuPont.

Harper was the recipient of many awards for his career achievements, including Stevens' 2015 International Achievement Award. He received the GE Chairman's Turn Around of the Year Award, and in 2005 was named by *Black Enterprise* magazine as one of the 75 Most

Powerful African-Americans in Corporate America. That year, he received the Award for Professional Achievement from the 100 Black Men of Stamford, Connecticut.

A strong believer in giving back, Harper started a GNX Foundation that, to date, has given more than \$3.5 million to charities around the world. He sat on the boards of several non-profits that focus on improving the future lives of minority or disadvantaged children. His support and advocacy also helped lead to the establishment in 2017 of the Stevens ACES program, a pre-college and undergraduate program at Stevens designed to increase the number of underrepresented minority students in STEM education and careers. (See story on p. 32.)

Harper was an avid reader and a great lover of jazz — his signature signoff was “Jazz Forever” — as he collected jazz recordings and traveled the globe attending jazz concerts in North America and Europe.

He is survived by his wife, Linda.

**Alumni Weekend reunion, June 1-3, 2018**

'83

Guest log from Jeff Smith:

Nov. 1, 2017 — Hard to believe it's nearly 35 years since we graduated from Stevens. I know much has changed at the school and on campus, and I enjoy getting back to Hoboken whenever possible.

For me, the years have flown by. Christine and I have been married 34 years and have been

blessed with two great children and, most recently, a daughter-in-law. Our son is a banker, fits his personality and golfing ability perfectly, and his wife is in healthcare. Our daughter graduated from Franklin & Marshall with a degree in physics and is seeking her first career opportunity.

For Christine and me, we have moved throughout the country, living in Kansas, Texas, Maryland, Iowa and, for the last 16 years, Pennsylvania. My career has centered on the building materials industry, a very cyclical industry. Currently, I am running a company in Houston, commuting from Pennsylvania on an almost weekly basis. Christine does enjoy visiting Texas during the winter months. We had a great time at the NCAA Final Four in 2016 and most recently at a Houston Astros championship game!

Here's an update from Ann Petrigliano: “Hi Everyone, I am so excited to share stories, laugh and have fun at our 35th reunion. We would like to make this the biggest and best reunion ever, but we need your help. Please share any ideas you have for a Class of 1983 exclusive event during Alumni Weekend with Alexis Kenny, akenny1@stevens.edu, on the Alumni Engagement team. Let us know if you have any suggestions or would like to help. We look forward to seeing you in June. Ann Petrigliano”

Looking forward to our 35<sup>th</sup> Class Reunion in June! Jeff Smith; jdsmith934@gmail.com; http://www.linkedin.com/in/jdsmith2; (H) 717-299-0949; (C) 717-205-3288 — **Richard O. Van Tassel, rvt710@hotmail.com**





Brian Quinn '86 wed Karen Cosenza in November 2016.

**'86** Hello '86ers! I have volunteered to be the secretary for our class. My home is in Greenfield, Wisconsin, where I work for MillerCoors. I am a project manager and travel to visit our breweries throughout the country. Now, some updates from our classmates:

**Chris Fleischauer Geibel** shares that her husband Steve has been at Northrop Grumman for 31 years. They have a son who is working as a mechanical engineer in Baltimore and is engaged. Her third son is in college studying to be a physician's assistant.

**John Avallone** celebrated his 15th year teaching physics and AP physics at New York City's Stuyvesant High School, loving almost every minute of it. John is also a curling enthusiast!

**Audrey Broadnax-Shabazz** has been working at Picatinny Arsenal for 28 years. She has two children and two grandchildren. Her son is a writer (Daryl Omar) and sells books on Amazon.

**Pete Rabbeni** has worked for Global Foundries since 2012 as senior director of the RF business unit, business development and product line team. He travels extensively, engaging new customers and speaking at conferences and consortia on 4G/5G and emerging wireless markets. Pete is married to Kim Cuscovith '84 and has two children.

**Denise Kalinski Uminski** has been working at Prudential in New Jersey for 31 years. She has been married to Alan for 26 years. She lives in Raritan, New Jersey. Denise shares that **Jeanne Duggan Burgermeister** and **Jeanne O'Connor Massaro** both have new grandsons! **Lynn Parsons Yagel's** daughter is a sophomore at Stevens.

**Pat Conlon Barno** works for Bechtel. Two children have graduated from college and work in Boston. Two children are in college and one is in high school.

**Trish Caldwell Bosco** shares, "After graduation I worked as an engineer for many years. I met my husband at work and took a long break from engineering when we had our two children. Now that they are off to college (one is a chemical engineer and the other in pre-veterinary medicine), I'm slowly getting back into the swing of the working world with a part-time job at Ace Hardware. The highlight of my job is key fabrication. Sometime in the not-so-distant future I hope to return to the technical field. In

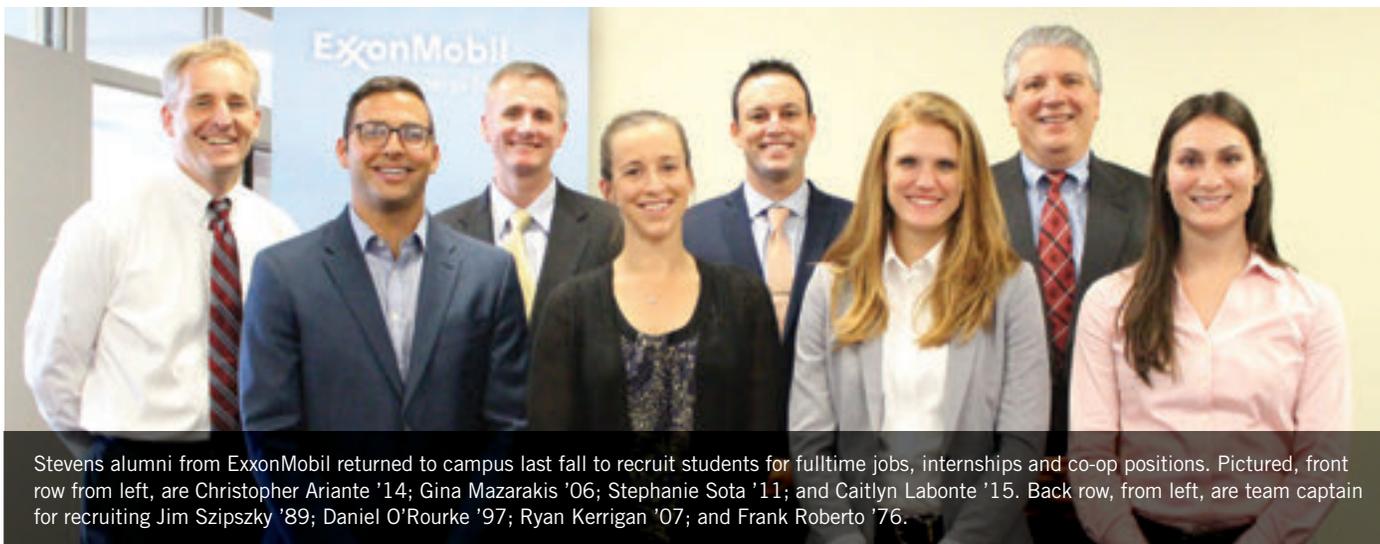
the meantime, I stay busy zoo-keeping (two dogs, three chickens, one parakeet, one chinchilla and one rabbit) and knitting a giant periodic table of elements blanket of my own design (kind of making it up as I go along)."

Finally, an update from **Brian Quinn**: "Hi, Debi. Sorry for the delay. My PC is still in my old home in Levittown. I'm here to visit Dad, so I got the chance to use the computer. I have attached a high-resolution picture from my wedding. Some details about the wedding: I married Karen Cosenza on Nov. 20, 2016, at the Bourne Mansion in Oakdale, New York, in front of 150 guests. I'm a New York City public school teacher and Karen is a major claims specialist in the insurance industry. We live in Rockville Centre, New York."

Thank you everyone for sharing.  
— **Debi Motler, Dmotel419@gmail.com**

**'89** Nov. 1, 2017 — The changing of the seasons to cooler weather always causes me to think of not only the coming holidays but also old friends. A time of hibernation and less activity that often allows for calendar openings. I plan on connecting with Stevens friends this winter — what about you?

In the early fall I was contacted by **Vivek Rajgarhia** to ask about the possibility of getting some help with an anniversary surprise for his wife, **HuynhNga Nguyen '90**. They were soon to celebrate their 25<sup>th</sup> wedding anniversary, and he thought it would be a special surprise to bring Nga back where it all first happened, the most



Stevens alumni from ExxonMobil returned to campus last fall to recruit students for fulltime jobs, internships and co-op positions. Pictured, front row from left, are Christopher Ariante '14; Gina Mazarakis '06; Stephanie Sota '11; and Caitlyn Labonte '15. Back row, from left, are team captain for recruiting Jim Szipszky '89; Daniel O'Rourke '97; Ryan Kerrigan '07; and Frank Roberto '76.



The Stevens Alumni Association presented merit-based scholarships to the children and grandchildren of alumni, during its meeting last November. Here, some scholarship recipients and their parents gather with SAA President Vicky Velasco '04, far right.

romantic place on campus, the chemistry lab (see what I did there?!). Vivek had a full evening planned and needed help with coordination. We got him connected with the right person and sure enough, it all worked out beautifully.

This is the email from Nga recapping the evening's events: "It was a long day but well worth the walk down memory lane. I met Vivek early morning in July 1986 for chemistry lab as part of the STEP program, where he was the tutor and I was an incoming freshman. We started dating shortly after that and six years later, we got married over Labor Day weekend on Sept. 5, 1992. After the wedding, we moved to India where Vivek was living since his graduation in 1989. We lived in a 'suburb' of New Delhi, in a little town called Gurgaon, where Vivek started a company making connectors for optical fibers. After two years, we decided to move back to New Jersey where Vivek worked for a fiber optics company while I worked with SASIB Bakery managing the

automation of electrical components for their industrial baking ovens. Vivek switched over to Lucent Technologies two years later and started a lot of international traveling as he built up its optics division. For the next eight years, we moved our residence from New Jersey to Hong Kong, back to New Jersey, to Germany, back to New Jersey and, for the second time, to Gurgaon, India, and finally to Bridgewater, New Jersey, where we decided we needed to settle as our family had now grown from party of two to party of five! Fast forward to the present: Vivek is now SVP & GM for MACOM Technology Solutions; Ananya, 20, is a senior at Carnegie Mellon University getting her degree in computer science; Ashaan, 18, is playing soccer in Germany, pursuing his dream of becoming a pro; and our youngest, Ashali, 14, just started high school in September.

"And me, since Vivek's travels started, I quit my job and have been a 'soccer mom' ever since. Amidst all our travels, we never returned to

Stevens as a couple until our silver anniversary and it was so nice to visit all the places that we had frequented, including having dinner where we went for our first date, Ali Baba, and, of course, the spectacular view at Castle Point!

"Thank you again, to you Rebecca Markley (assistant editor of *The Indicator*) and Professor

Cattabiani, for taking the time out to meet with us and making it a very memorable day.

"All the best, HuynhNga (Nguyen '90) Rajgarhia" How romantic is that?? Congratulations, Vivek and Nga, and can't wait to hear what you do for your 50<sup>th</sup> anniversary! (*Editor's Note: Hear more from HuynhNga and Vivek, and learn their secrets to a happy marriage, in A Final Thought on page 72.*)

I know there are other Stevens couples (with an '89 grad) and I would love to hear from you! Tell your love story here! — Dawn M. Madak, [dawnmadak@me.com](mailto:dawnmadak@me.com)

**'92** Sept. 18, 2017 — Here's an update on Muhammadou Kah M.S. '92 Ph.D. '00.

Professor Muhammadou M.O. Kah just completed a six-year term as the third vice chancellor/president of The University of The Gambia (UTG) (2009-2015), where he also held the position of professor of information technology & communications and overseer of the Teachers College. He was the first Gambian born to lead the university. In his 20-plus years in higher education, Kah has held teaching and leadership positions in the U.S. and abroad. His first full-time academic position was as director of institutional research and strategic planning at Bloomfield College, New Jersey. He would go on to cement his career in academia at Howard, George Washington, and Rutgers universities. In addition, he also served internationally at the American University of Sharjah (AUS) as department chairman, American University of



Gina Okun '90 M.Eng. '91 and her daughter, Alyssa, attended the Scholarship Luncheon last fall.

Nigeria (AUN) and ADA University (ADA), Baku, Azerbaijan, developing and teaching courses in information technology, computer science and information systems.

Prior to becoming UTG's president (vice chancellor) in 2009, Kah spent four years in Nigeria as the founding dean of the School of Information Technology and Communications at the American University of Nigeria (AUN), where he doubled for a year as interim dean of the School of Business & Entrepreneurship. While at AUN, he founded the African Center for ICT Innovations and Training, and also doubled as interim CIO and served as a board of trustee member.

Kah was also engaged by ADA University in Baku, Azerbaijan (2015-2017), as the vice rector for Technology & Innovations and the founding dean of the School of Information Technology & Engineering, immediately after successfully completing his tenure as The University of The Gambia's vice chancellor/president. He was recently named as vice president of Academic Affairs/provost and professor of Information Technology & Computing at the American University of Nigeria. Kah was honored to be a regular contributor of the Africa Module in the Advance Leadership (ALP) Program of the Cambridge Judge Business



**1** Meeting at an Army Life Fire Training Exercise at Fort Benning, Georgia, from left, were Luis Garcia '15, Emmanuel Marasigan '09 and Bradlee Jeffrey '15. **2** Frank Bell '91, left, enjoyed dinner last year with retired Stevens professor Silvio Laccetti.

School and was appointed an honorary fellow in 2016-2017 of the Judge Business School and the Digital Innovation Center, University of Cambridge.

He is passionate about advancing the human condition by strengthening computing, engineering, science, innovation and IT education and higher education. He serves on many boards in the banking (Zenith Bank-The Gambia) and higher education sectors in The Gambia and Nigeria. He also serves as a member of the Malabo Montpellier Panel and the EuroScience Forum

2018, amongst others.

Kah completed his bachelors, master's and Ph.D. at Stevens and also holds a master's of science in finance (financial engineering) from George Washington University, Washington, D.C. In addition, he completed the Advance Leadership Program (ALP) of the Cambridge Judge Business School, University of Cambridge, and a Postgraduate Diploma (DipSI) in Strategy and Innovation from the Said Business School, University of Oxford, Oxford, UK. — **Kimberley A. Davies Leahy**, [kimber\\_davies@yahoo.com](mailto:kimber_davies@yahoo.com)

## Link Yearbook Exchange

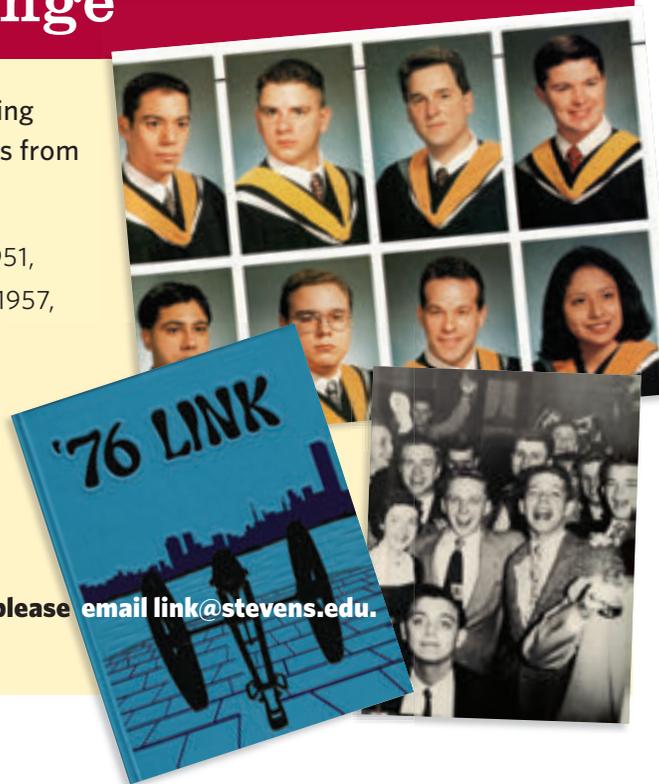
Stevens' *Link* yearbook office would like to inform all Stevens alumni that the following *Link* editions are available for purchase:

1942, 1947, 1948, 1958, 1959, 1962, 1963, 1975, 1976, 1979, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1990, 1991, 1992, 1993, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016.

The office is also seeking donations of yearbooks from the following years:

Pre-1946, 1949, 1950, 1951, 1952, 1953, 1954, 1956, 1957, 1960, 1963, 1964, 1965, 1966, 1967, 1970, 1971, 1972, 1974, 1977, 1980, 1985, 1989, 1994, 1997, 1999.

**For more information, please email [link@stevens.edu](mailto:link@stevens.edu).**



**Alumni Weekend reunion, June 1-3, 2018**

'08

Sept. 25, 2017 — This fall, Dr. Katie Weatherall, an equine veterinarian, started a three-year equine surgery residency at Auburn University's Veterinary Hospital in Auburn, Alabama. — **Derek J. Ives**, [derek.j.ives@gmail.com](mailto:derek.j.ives@gmail.com); **Pres. Jonathan Matos**, [jonmatos@gmail.com](mailto:jonmatos@gmail.com); **V.P. Michael Bocchinfuso**, [mbochinfuso@gmail.com](mailto:mbochinfuso@gmail.com)

**Vitals**

**Marriages**

**Brian Quinn '86 to Karen Cosenza** on Nov. 20, 2016.

**Thomas MacKinnon '12 to Monique Caron** on Oct. 22, 2016.

**Javier Parra '15 to Carolina Pelaez '16** on April 28, 2017.

**Obituaries**

**W.E. Taverna '43** 10/26/17

**E.A. Pittaluga '45** 10/18/17

**W.J. Neill, Jr. '47** 7/24/17

**D.E. Smith '47** 4/2/17

**W.E. Ring '48** 9/21/17

**E.J. Dierauf '51** 2/8/17

**A.G. Pehrson '52** 9/3/17

**W.B. Silvestri '52** 9/9/17

**R.F. McAlevy III '54** 7/15/17

**S. Schultz '54** 1/31/17

**G.E. Hawkins '56** 5/31/17

**W.J. O'Donnell '56** 4/23/17

**J. Huth '57** 1/24/17

**D.J. Engleke '59** 9/20/17

**H.R. Greenberg '74** 2/1/17

**B.W. McDonald '74** 8/29/14

**G.J. Moloney '77** 9/12/17

**A.H. Harper '78** 9/19/17

**C.A. Saylor '87** 8/30/17

**Graduate School**

**H.E. Gallagher, M.S. '55** 4/4/17

**W.C. Obi, Ph.D. '75** 2017

**Todd Borkey MTM '98** joins Alion Science and Technology as chief technology officer (CTO) and will be responsible for defining the company's technology roadmap and managing the relationships and operations to make that roadmap a reality. Previously, Borkey was CTO and vice president of Systems Solutions at Thales Defense & Security Inc., and was responsible for identifying areas of expansion and extending the company's reach in key markets. He has extensive experience in general management, programs and business development, gained through various leadership roles at DRS Defense Solutions, Inc., Northrop Grumman Corporation, and other highly respected firms.

Virtual Distance International founder and CEO **Karen Lojeski Ph.D. '06** recently received an initial private placement to fund her company's transition from a provider of consulting services to a software company, leveraging the company's Virtual Distance Analytics for workplace transformation, which drives improvements in workplace productivity, business profitability, collaboration and innovation. Lojeski launched VDI more than a decade ago, while she was attending Stevens.

With the launch of "150 Years is Enough" in June, Juvenile Justice Campaign Manager at the New Jersey Institute for Social Justice **Retha Onitiri M.S. '81** began an effort to change the state's system of juvenile incarceration. For the campaign, Onitiri said a broad coalition of about 50 organizations that include academics, lawyers, mental health professionals and grassroots groups are pushing to change the way the state deals with young offenders 150 years after Jamesburg, the major boys' prison, opened its doors. Prior to her work with the NJISJ, Onitiri spent 16 years at Alcatel-Lucent, with her last position being director of Supply Chain Operations for North America.

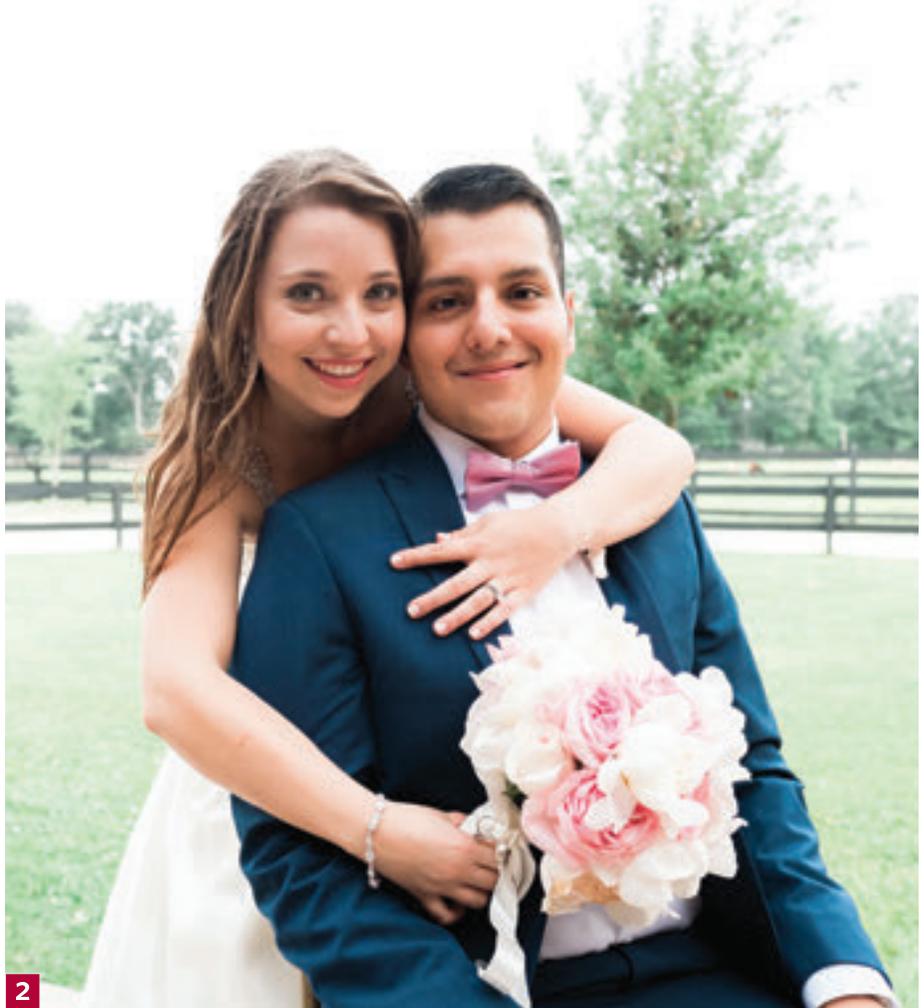
**Miriam Nelson Ph.D. '93** recently joined Korn Ferry Hay Group, a global people and organizational advisory firm, as senior client partner. In her role, Nelson will guide boards, CEOs and senior management to optimize their talent, particularly in core functions, through assessment, development, organization design, succession and retention strategies. Her clients include a variety of organizations across multiple industries, including the Fortune 100. Prior to joining the firm, Nelson was a partner in Aon Hewitt's Talent and Rewards Practice, working with leading organizations to improve the effectiveness of their talent. ❖



**Premal Kamal '13**, a supporter of the Class of 2013 Scholarship, at the Scholarship Luncheon last fall.



**1** The women's lacrosse team held its annual alumnae game last fall on campus, with players traveling from as far as New Hampshire and Maryland. **2** Carolina Pelaez '16 and Javier Parra '15 wed last April, with Stevens friends in their wedding party and attending their big day. **3** The baseball team saw some 30 alumni return for its alumni game last fall.



**2**

**'09** Nov. 20, 2017 — Emmanuel Marasigan met up with fellow Stevens alumni Luis Garcia '15 and Bradlee Jeffery '15 at an Army Life Fire Training Exercise at Fort Benning, Georgia. See their photo on page 68. — [Keith Cassidy, keith@cassidy.com](mailto:keith@cassidy.com)

**'12** Guest log from Thomas MacKinnon. Oct. 3, 2017 — "My wife, Monique MacKinnon, and I recently celebrated our one-year anniversary. The wedding took place in Morristown, New Jersey, on Oct. 22, 2016. I was happy to have my best man, Clint McCue '11, by my side. We currently reside in Mendham, New Jersey, where I am a technical manager for Armacell, and Monique is an architect for the USGBC. Thomas J. MacKinnon." — [Nicholas P. Barresi, nicholasbarresi@gmail.com](mailto:nicholasbarresi@gmail.com)

**'16** Guest log from Carolina Pelaez. Sept. 13, 2017 — "Javier Parra '15 and I got married in April of 2017 in Baton Rouge, Louisiana. Many of our friends from Stevens attended, and some were even in the wedding! Thanks, Carolina Pelaez, BASF, PDP Engineer, Project Management Office Support N-FTN/G." — [The Stevens Indicator, alumni-log@stevens.edu](mailto:alumni-log@stevens.edu)



**3**



## Southern California/Hollywood

Members of the Southern California Alumni Club hiked the Mt. Hollywood trail last September, to share Stevens memories, make new friends and take in the great views from the famous Hollywood sign. ❖

## NJ Club

The New Jersey Alumni Club cheered on the New York Red Bulls when they took on the Philadelphia Union at Red Bulls Arena in Harrison, New Jersey, on Sept. 17. The Red Bulls and Union played to a 0-0 draw. ❖



## Houston Club

The Houston Alumni Club had its usual robust turnout, as it hosted a State of Stevens address — an update on the university's research and achievements by students and faculty — on Oct. 25, in Houston. Professor and Davidson Lab Director Alan Blumberg was the guest speaker. ❖



## Stevens Technical Enrichment Program Alumni Club (STEP Alumni Club)

**About:** The STEP Alumni Club was established to maintain and continue the family bond that was cultivated while members were with the STEP program during their undergraduate years at Stevens. The club also aims to encourage among its members a sentiment of regard for one another and of attachment to STEP, as well as to current STEP students and members of the Stevens Alumni Association. Additionally, the STEP Alumni Club is tasked with stewarding the STEP scholarship, supporting STEP events and providing the current STEP alumni membership with a source of knowledge and information.

**Types of Activities:** Social gatherings, mentorship opportunities, panel discussions

**Leadership:** ShaQuill Thomas '15 (president), Madeleine Velez '15 (VP, communications), Bryan Vianco '15 (VP, events), Maria Claros '15 (VP, development & fundraising), Aleesha Chisholm '15 (VP, membership).

**Contact:** <https://www.facebook.com/groups/STEPalumniclub>

We are celebrating our 50th anniversary on Sept. 22, 2018. See page 5 of this issue of *The Indicator*. ❖

## Dramatic Society Alumni

Last fall, the Stevens Dramatic Society Alumni Affinity Club (DSAAC) hosted several fun events to support Stevens Dramatic Society and Theta Alpha Phi performances. Below is a Meet and Greet event. ❖



# 25 Years in the making.

**I**t wasn't until our 25th wedding anniversary that we returned to Stevens together on Sept. 5, 2017, the place where it all began. It felt like coming home, almost, because it wasn't just that I met my husband here; Stevens was where I spent most of my weekends while I was in middle and high school, visiting my sister, and then later my brother, who both attended and graduated from Stevens as well. So attending Stevens after high school graduation, following in my siblings' footsteps, was not only a given, but expected.

Stevens has changed a lot since I graduated 27 years ago, but there were still some similarities my husband Vivek Rajgarhia '89 and I noticed as we entered the gate on 9th Street. North Dorm looked the same as it had before, and so did the sand volleyball court that had just been built when we were there. On the contrary, the fieldhouse no longer looked like a run-down factory storage facility, but has been replaced by a state-of-the-art gymnasium, aptly named Schaefer Athletic Center. Even Walker Gymnasium, where I spent many days as a fencer and volleyball player, had an upgrade and facelift. However, the biggest changes were in Hoboken itself. Who would have thought this gritty little city from my younger days would launch itself onto a series of top ten ranking polls, such as best exciting small city, best walkable city, best eateries and even best public transportation?

Gone was the famous Charlie's Pub, where we were guaranteed to see a friendly Stevens face any night of the week. Even the Hoboken Daily News, where we could always call to have alcohol delivered to our dorms, has been replaced. However, good old, reliable Benny Tudino's is still there for the late-night slice (now \$2 instead of \$1).

And, miraculously, Ali Baba survived the changes, too — the same painted glass windows, faded paintings depicting the Arabian desert scenes, and owner, who came to greet us as we entered. Back to where it all started, sharing our anniversary dinner at the same place we went for our first date, eating the same split pea soup, gyro platter and falafel pita that we ordered all those years ago. And just like Benny's and Ali Baba, our marriage "survived" 25 years of ups and downs as we navigate through this changing journey of life. ❖ — *HuynhNga Rajgarhia '90*



**1** Vivek Rajgarhia '89, HuynhNga Rajgarhia '90 and their children on vacation in Maui. **2** The Rajgarhias visit the chemistry lab in McLean on their 25th anniversary. They met there 31 years before. **3** The Rajgarhias on their wedding day, Sept. 5, 1992.

 All submissions for consideration for "A Final Thought" may be sent to Rebecca Markley at [Rebecca.Markley@stevens.edu](mailto:Rebecca.Markley@stevens.edu)



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*"The Pinnacle Scholarship encouraged me to delve into research as soon as I could, and allowed me to live on campus through the summer and complete a challenging research project in the Sensorimotor Control Laboratory."*

— KATIE VAN ORDEN '19

# HELPING HAND

Katie Van Orden '19 dreams of creating better prosthetics — and has already begun creating them, thanks to scholarship support.

Supported by a Pinnacle Scholarship — a program created to reward top Stevens students with travel, study and research opportunities — Katie Van Orden spent the summer following her freshman year in Professor Ramana Vinjamuri's lab, prototyping a human-hand exoskeleton with three-dimensional printers. We empower students to do their very best through both need-based and merit-based support. Scholarships help us recruit exceptional students like Katie, and enable them to discover new opportunities to grow both personally and intellectually.

**STUDENT SUCCESS.**  
**THAT'S THE POWER OF STEVENS.**

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