Ph.D. HOODING CEREMONY

MONDAY, MAY 19, 2025

DEBAUN AUDITORIUM, EDWIN A. STEVENS HALL

ORDER OF CEREMONY

ACADEMIC PROCESSION

WELCOME
Constantin Chassapis
Senior Vice Provost for Graduate Education

OPENING
Jianmin Qu
Senior Vice President for Academic Affairs and Provost

CONGRATULATORY REMARKS
Nariman Farvardin
President

HOODING OF DOCTORAL CANDIDATES
Charles V. Schaefer, Jr. School of Engineering and Science
School of Business
Interdisciplinary Programs

CLOSING
Constantin Chassapis

ACADEMIC RECESSIONAL

The list of candidates presented in this program is accurate as of May 1, 2025, and may not reflect actual degree completion. This listing does not constitute an official record of graduation.

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Mohamed Abdelkader
Civil Engineering
Data- and Process-Based Methods to Enhance Streamflow Estimation Across Scales
Advisor: Marouane Temimi

Asaad Shahid Abdul-Hamid
Systems Engineering
Systems Methodologies for Predicting, Mitigating and Remediating Orbital Debris
Advisor: Hao Chen

Hossam Aboalela
Ocean Engineering
Piezoelectric Energy Harvesting From Flapping Elements
Advisor: Muhammad Hajj

Erfan Amini
Ocean Engineering
Optimized Nature-Based Solutions for Resilient Coastal Flood Mitigation Under Climate Change
Advisor: Reza Marsooli

Rayan Bahrami
Mechanical Engineering
Multi-Robot Systems in Adversarial Settings: Adversary Detection, Resilient Coordination and Cooperation
Advisor: Hamid Jafarnejad Sani

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Rojyar Barhemat
Civil Engineering
Artificial Intelligence-Powered Design and Monitoring of Civil Structures and Metamaterials
Advisor: Yi Bao

Hossein Basereh Taramsari
Engineering Management
Product Sustainability Management: A Multi-Dimensional Framework for System Improvement
Advisor: Roshanak Nilchiani

Panteha Behboodi
Materials Science & Engineering
Optimizing Multiple Myeloma Treatment Approaches by Elucidating Tumor-Stroma Interactions in the Bone Marrow Microenvironment
Advisor: Woo Lee

Amy Bredes
Ocean Engineering
Understanding Wave Attenuation of Constructed Oyster Reefs: Trends, Field Observations and Design Approach
Advisor: Jon Miller

JD Caddell
Sociotechnical Systems
Unveiling Interpersonal Knowledge Networks in Organizations: Integrating Network Complexity and Trust
Advisor: Roshanak Nilchiani

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Daniel Centeno
Chemistry
Modeling of Intracellular Taurine Levels in Ovarian Cancer
Advisor: Marcin Iwanicki

Huihui Chen
Pure and Applied Mathematics
Advances in Risk Measure Theory and Statistical Estimation for Composite Functionals in Stochastic Optimization
Advisor: Darinka Dentcheva

Jiawen Chen
Interdisciplinary Engineering
Exploring MRNA- and Cell-Based Therapies for Cystic Fibrosis
Advisor: Jinho Kim

Pengju Chen
Physics
Investigating Open Quantum Systems: Controlled Dynamics and Information Tracking
Advisor: Ting Yu

Siwei Chen
Mechanical Engineering
Field-Free Spin-Orbit Torque Switching of 2D Dilute Magnetic Semiconductors Via Spin-to-Spin Conversion
Advisor: EH Yang

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Xianbang Chen
Electrical Engineering
Boosting Power System Operation Economics via Closed-Loop Predict-and-Optimize
Advisor: Lei Wu

Wuxinlin Cheng
Computer Engineering
Stability Analysis of Machine Learning Models on Manifolds
Advisor: Zhuo Feng

Pooya Dastpak
Civil Engineering
Stochastic Design of Geotechnical Systems
Advisor: George Korfiatis

Juan Carlos Dibene
Computer Science
Instantaneous Rolling Shutter Camera Localization and General Planar Motion from Point Correspondences
Advisor: Enrique Dunn

Junteng Du
Chemical Engineering
Advanced Strategies for High Performance All-Solid-State Batteries
Advisor: Jae Chul Kim

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Shawn Dullen
Systems Engineering
Achieving Effective Performance Using Set-Based Design Framework During the Concept Stage and Early Development Stage of the Lifecycle
Advisor: Dinesh Verma

Alex Dworzanczyk
Mechanical Engineering
High Mach Number Aerobreakup
Advisor: Nicholaus Parziale

Misagh Esmaeilpour
Environmental Engineering
Multiscale Study of Flow in Porous Media and the Applications to Subsurface Water and Energy Systems
Advisor: Cheng Chen

Sadaf Farsinejad
Chemical Biology
Cell Cycle Suppression in Ovarian Cancer is Associated with Integrin-β4 and ECM-Driven Cisplatin Resistance
Advisor: Marcin Iwanicki

Malvika Garikapati
Physics
Low-Noise Quantum Frequency Conversion and Applications
Advisor: Yuping Huang

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Pengwei Guo
Civil Engineering
Artificial Intelligence-Powered Design and Characterization of High-Performance Fiber-Reinforced Cementitious Composites
Advisor: Weina Meng

Shengfeng Huang
Civil Engineering
Beyond Tunnel Vision: Leveraging Machine Learning for Predictive Analysis of Tunnel Boring Machine Performance
Advisor: George Korfiatis

Yewei Huang
Mechanical Engineering
Inference with Factor Graphs for Single- and Multi-Robot Perception and Navigation
Advisor: Brendan Englot

Mohammad Rahul Islam
Systems Engineering
A Novel Scalable, Low-Burden and Privacy-Preserving Affective Mobile Sensing System for Mental Health Monitoring in Real-World Settings
Advisor: Sang Won Bae

Meng Jiao
Systems Engineering
Learning from Sparse and Graph-Structured Electrophysiological Data for Brain Disorder Diagnosis
Advisor: Feng Liu

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Berina Mina Kilicarslan
Civil Engineering
Enhancing Hydrological Models to Support Flood Inundation Mapping and Water Resources Management
Advisor: Marouane Temimi

Meenu Kumar
Chemistry
Investigation of Gas-Phase Ion-Neutral Interactions by Ion Mobility Separation Technique and Mass Spectrometry
Advisor: Athula Attygalle

Lili Li
Physics
Compressive Photon Measurement for Machine Learning
Advisor: Yuping Huang

Ruhao Li
Materials Science and Engineering
Utilizing Interfaces and Nanostructures in New Hybrid Electrolyte Designs for Enhanced Ion Transport
Advisor: Pinar Akcora

Xueshen Li
Biomedical Engineering
Fast, Intelligent and Pathological Optical Coherence Tomography Scanning Using Deep Learning for Human Coronary Imaging
Advisor: Yu Gan

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Zhan Li
Physics
High-Q Resonators and Single Photon Nonlinearity on Thin Film Lithium Niobate
Advisor: Yuping Huang

Geoffrey A. Lichtenheim
Sociotechnical Systems
Transforming E-Governance with Cloud-Based AI: A Systems Methodology for Implementation
Advisor: Mo Mansouri

Hongshan Liu
Biomedical Engineering
Deep Learning-Based Segmentation in Coronary Optical Coherence Tomography Images
Advisor: Yu Gan

Sam Liu
Biomedical Engineering
Leveraging Linear and Angular Momenta Analyses to Understand Control and Performance of Sporting Movements
Advisor: Antonia Zaferiou

Kazi Mita
Ocean Engineering
Climate Impacts and Adaptation Assessment for Fluvial, Coastal and Compound Flooding
Advisor: Philip Orton

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Seyed Sepehr Mohajerani
Physics
Fabrication and Acoustic Manipulation of Quantum Emitters in 2D Semiconductors
Advisor: Stefan Strauf

Ehsan Nasiri
Mechanical Engineering
Hybrid Force/Motion Control and Telemanipulation Strategies Using Redundancy Resolution Methods for Surgical and Manufacturing Applications
Advisor: Long Wang

Mina Nouri
Civil Engineering
Enhancing Urban Traffic Monitoring: Methods for Anomaly Detection and Data Imputation
Advisor: Mohammad Ilbeigi

Ayodeji Omoniyi
Chemical Engineering
The Design of Bimetallic Catalysts for the Upgrading of Carboxylic Acids
Advisor: Alyssa Hensley

Yue Qi
Materials Science and Engineering
Molecular Fundamentals of Metal Nanoparticles for Catalytic Selective Hydrogenation and Oxidation of Hydrocarbons
Advisor: Simon Podkolzin

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Patrick Rehain
Physics
Quantum Parametric Detection for Hyperdimensional Sensing
Advisor: Yuping Huang

Abdelali Sajia
Physics
Pushing the Boundaries of Resolution: New Methods for Passive Two-Source Super-Resolution
Advisor: Xiaofeng Qian

Ishira Samarasinghe
Chemistry
Structural Dynamics of Tautomeric Forms and Artifacts of Aniline and Related Compounds Under Atmospheric Pressure Chemical Ionization Mass Spectrometric Conditions
Advisor: Athula Attygalle

Steven Michael Sheets
Environmental Engineering
Mechanisms of Dechlorination and Denitration During Alkaline Hydrolysis of Polychlorinated Polynitrobenzenes
Advisor: Xiaoguang Meng

Justin Louis Sitler
Mechanical Engineering
Design, Modeling and Control of Low-Cost Underwater Vehicle-Manipulator Systems
Advisor: Long Wang

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Daniel Tafone
Physics
Remote Material Characterization with Single Photon LiDAR
Advisor: Yuping Huang

Chao Tang
Physics
Frequency Conversion and Dispersion Engineering on Thin Film Lithium Niobate
Advisor: Yuping Huang

Renhong Tang
Materials Science and Engineering
Gold Nanorod Arrays on Single Crystal Sapphire Optical Fiber for Sensing at Elevated Temperatures: An Integrated Numerical and Experimental Study
Advisor: Henry Du

Yuntian Teng
Civil Engineering
Non-Darcian Flow, Multiphase Flow and Hydration Thermodynamics in Subsurface Energy and Environmental Systems
Advisor: Cheng Chen

Mitchell Tillman
Biomedical Engineering
Mechanics of Whole-Body Balance and Momentum Control During Straight-Line Gait and 90-Degree Turns
Advisor: Antonia Zaferiou

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Shuqiao Wang
Chemical Engineering
Dopant Effects on the Catalytic Performance of Ethane Oxidative Dehydrogenation Over NiO-Based Catalysts
Advisor: Alyssa Hensley

Weilun Wang
Electrical Engineering
On Optimal Planning and Operation of Smart Grid Edge Devices: Electric Vehicles and Distributed Energy Resources
Advisor: Lei Wu

Ruiran Wang
Computer Engineering
Fast Data Dissemination In Blockchain Networks
Advisor: Shucheng Yu

Weihan Wang
Computer Science
Monocular and Binocular Visual-Inertial System Initialization and Real-Time Dense 3D Mapping
Advisor: Philippos Mordohai

Bingyang Wen
Electrical Engineering
Trustworthy Deep Learning via Causal Intervention, Information Theory and Visual-Linguistic Attention and Applications to Alzheimer's Disease Detection
Advisor: Koduvayur Subbalakshmi

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Nan Wu
Mechanical Engineering
Filler Patterning in Stereolithography Vats with Acoustic Waves
Advisor: Kishore Pochiraju

Danna Yan
Chemical Engineering
High-Voltage-Stable Complex Oxide Cathodes for Advanced Lithium-Ion Batteries
Advisor: Jae Chul Kim

Fan Yang
Electrical Engineering
Resource Allocation and Privacy for Next-Generation Wireless Ad Hoc Networks
Advisor: Cristina Comaniciu

Guang Yang
Electrical Engineering
Human-Aware Mobile Robot Navigation: Learning-Based Methods
Advisor: Yi Guo

Yunxuan Yi
Pure and Applied Mathematics
Sequential Stochastic Dominance and Approximations
Advisor: Darinka Dentcheva

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Cengcang Zeng
Electrical Engineering
Signal Processing for Distributed RF Sensing with Non-Orthogonal Waveforms
Advisor: Hongbin Li

Shiwei Zeng
Computer Science
Data-Efficiency and Robustness in Machine Learning
Advisor: Jie Shen

Kylee Zgeib
Chemical Biology
Molecular Characterization of Dedifferentiation-Induced Oncogenic Stemness in the Intestinal Epithelium
Advisor: Ansu Perekatt

Lan Zhang
Civil Engineering
A Machine Learning Framework for Public Transportation Infrastructure System Flow Estimation, Characterization, and Prediction
Advisor: Kaijian Liu

Zipei Zheng
Physics
Broadening LiDAR's Applications Across Fields: An Exploration on Biomedical Imaging
Advisor: Yuping Huang

CHARLES V. SCHAEFER, JR. SCHOOL OF ENGINEERING AND SCIENCE

Da Zhong

Computer Science

Privacy Disparity in Machine Learning: Causes, Mitigation and New Privacy Threats

Advisor: Hui Wang

SCHOOL OF BUSINESS

Kexin Gu
Business Administration
Three Essays on Institutional Investors: Innovation Strategy, Cultural Familiarity and AI Bias
Advisor: Alexander Rodivilov

Zequn Li
Financial Engineering
Interpreting Machine Learning Models in Empirical Asset Pricing
Advisors: Steve Yang and Ying Wu

Cheng Lu
Financial Engineering
Advancement of Reinforcement Learning in Asset Allocation and Pricing
Advisor: Majeed Simaan

Cheuk Yin Jeffrey Mo
Financial Engineering
Design of Reinforcement Learning Control in Agent-Based Modeling: An Investigation of Systemic Risks in the Interbank Lending Market
Advisor: Steve Yang

Jiali Qi
Business Administration
Digital Co-Creation in Platform-Centric Ecosystems: Three Studies of the Gaming Industry
Advisor: Aron Lindberg

SCHOOL OF BUSINESS

Hongju Ren
Business Administration
Three Essays on Influence of Social Culture/Networks on Investors' Behavior
Advisor: Anand Goel

Ruijing Yang
Financial Engineering
Three Essays on Optimal Execution Under Capital Ratio Constraints
Advisors: Zachary Feinstein and Somayeh Moazeni

Zhiyuan Yao
Financial Engineering
Application of Reinforcement Learning in Financial Trading and Execution
Advisors: Chihoon Lee and Ionut Florescu

INTERDISCIPLINARY PROGRAMS

Zihan Chen
Data Science
Three Essays on Graph-Based Deep Learning Models in Business Analytics
Advisor: Jingyi Sun

Jacob Erickson
Data Science
Can Social Platforms Foster Constructive Political Dialogue? Three Essays on Digital Infrastructures and Online Spaces
Advisors: Bei Yan and Hui Wang

Lun Li
Data Science
Workforce Analytics in the Era of Big Data
Advisors: Rong Liu and Theodoros Lapppas

James D. Pleuss
Data Science
Data-Driven Approaches to Nutritional Epidemiology and Dietary Assessment
Advisor: Samantha Kleinberg

Chloe Weiers
Data Science
Quadratic Equations in Wreath Products of Abelian Groups
Advisors: Alexander Ushakov and Antonio Nicolosi

Mingsong Ye
Data Science
The Use of Machine Learning and AI to Improve Computational Performance in Large-Scale Optimization and Time Series Applications
Advisor: Edward Stohr

Yangyang Yu
Data Science
Aligning Multi-Modal Object Representations to Human Cognition
Advisor: Jordan Suchow

STEVENS

INSTITUTE OF TECHNOLOGY™

1870

stevens.edu