

2025 UNIVERSITY OF MARYLAND COLLEGE PARK



A. JAMES CLARK
SCHOOL OF ENGINEERING



Undergraduate **Honors and Awards** Ceremony



THE A. JAMES CLARK SCHOOL OF ENGINEERING

2025 UNDERGRADUATE HONORS AND AWARDS CEREMONY

Program

Welcome and Opening Remarks

Samuel Graham, Jr., *Dean and Nariman Farvardin Professor*

Presentation of Awards

AEROSPACE ENGINEERING

Alison Flatau, *Professor and Chair*

BIOENGINEERING

Ian White, *Professor, Associate Chair & Director of Undergraduate Studies*

CHEMICAL AND BIOMOLECULAR ENGINEERING

Peter Kofinas, *Professor and Chair*

CIVIL AND ENVIRONMENTAL ENGINEERING

Nii Attoh-Okine, *Professor and Chair*

ELECTRICAL AND COMPUTER ENGINEERING

Sennur Ulukus, *Professor and Chair*

FIRE PROTECTION ENGINEERING

Arnaud Trouvé, *Professor, Chair & Director of Graduate Studies*

MATERIALS SCIENCE AND ENGINEERING

Ray Phaneuf, *Professor and Associate Chair*

MECHANICAL ENGINEERING

Harry Dankowicz, *Professor and Chair*

ENGINEERING CAREER SERVICES

Veronica Perrigan, *Director*

WOMEN IN ENGINEERING

Paige Smith, *Director*

CENTER FOR MINORITIES IN SCIENCE AND ENGINEERING

Rosemary Parker, *Director*

MARYLAND TECHNOLOGY ENTERPRISE INSTITUTE

Joseph Naft, *Director, Maryland Industrial Partnerships*

A. JAMES CLARK SCHOOL OF ENGINEERING

Samuel Graham, Jr., *Dean and Nariman Farvardin Professor*

Closing Remarks



AEROSPACE ENGINEERING

2025 HONORS AND AWARDS

The **Department of Aerospace Junior Merit Award** is presented to juniors in the department who have attained the highest overall academic average.

*Awarded to **Joseph Hauerstein, Kenshiro Lim, and Bence Szego***

The **Joseph Guthrie Scholarship Award** is presented to a junior in the department who has attained the highest overall academic average.

*Awarded to **Robert Latyak***

The **Alfred Gessow Scholarship Award** is presented to those seniors in the department who have attained the highest overall academic average.

*Awarded to **Kevin Franzblau and Benjamin Leazer***

The **American Institute of Aeronautics and Astronautics Outstanding Achievement Award** is presented to the student who has made the most outstanding contribution through scholarship and service to the student branch and the department.

*Awarded to **Marissa Potts***

The **Women in Aeronautics and Astronautics Award** is presented to the students who have made the most outstanding contribution through scholarship and service to the organization and the department.

*Awarded to **Rachel Boschen and Allison Julia “AJ” Rahr***

The **Department of Aerospace Engineering Chair’s Award** is presented to those students who have made the most outstanding contributions through excellence in academics and outstanding service and leadership to the department.

*Awarded to **Jeremy “JJ” Kuznetsov***

ABOUT THE AWARDEES

Rachel Boschen is a senior aerospace engineering student, a Banneker Key Scholar, and a Mighty Sound of Maryland Marching Band member. As co-chair of Women in Aeronautics and Astronautics, she plans networking, social, and outreach events for the greater University of Maryland community. She serves the music community through Tau Beta Sigma and Sigma Alpha Iota membership. Rachel participates in the Nearspace Balloon Payload Program and completed the L’SPACE NASA Proposal Writing and Evaluation Experience. She plans to enter the workforce following graduation this spring.

Kevin Franzblau is a senior aerospace engineering major. He has performed research in gravity modeling, using machine learning for the Machine Learning for Dynamical Systems Lab on campus. He has worked as a teaching fellow for computing fundamentals for engineers. Currently, Kevin is interning at Draper Laboratory in Cambridge, Massachusetts, where he intends to return to work full-time in the fall.

Joseph Hauerstein is a junior majoring in aerospace engineering with a 4.0 GPA. He has completed the University Honors Citation and is currently a University Honors Student Fellow, designing custom radios for high power rocketry. Since his freshman year, he has been a member of the Terrapin Rocket Team on the avionics sub-team, where he now leads the development of the live video, telemetry, and ground station subsystems. For the past two summers, Joseph has interned in the Navigation and Mission Design Branch at Goddard Space Flight Center, working on improving branch trajectory optimization tools. Next summer, he plans to begin his master’s degree through the BS/MS program at UMD.

Jeremy “JJ” Kuznetsov is a dual-degree senior studying aerospace engineering and mathematics. He conducts research under Dr. Derek Paley in the Collective Dynamics and Controls Laboratory, developing life-saving autonomous robots for the Defense Advanced Research Projects Agency’s Triage Challenge. JJ leads projects in the Balloon Payload Program in continuation of his work at NASA’s Jet Propulsion laboratory and runs educational community service programs. He has committed to Princeton University for a PhD in mechanical/aerospace engineering, where he will research collective coordination through applied mathematics.

Robert Latyak is a junior aerospace engineering student with a 4.0 GPA. He is in the University Honors program as well as the aerospace engineering honors program. Currently, he is conducting undergraduate research with the High-Speed Aerodynamics and Propulsion Laboratory. He is an active member of Engineers Without Borders, formerly as a travel team member and electrical team leader for the Senegal project, and currently, as a member of the Uganda project. Chase has studied abroad with the Clark in Madrid Program and is a member of club tennis.

Benjamin Leazer is a senior aerospace engineering student on the astronautical track, maintaining a 4.0 GPA. He serves as a leader within the Telescope Housing Event-based Imaging Apparatus (THEIA) nanosatellite project, where he works on general bus design and analysis. Benjamin is passionate about pursuing a career in autonomous systems and control.

Kenshiro Lim is a junior aerospace engineering student and a part of the Gemstone Honors program. Under the student organization Students for the Exploration and Development of Space, he is currently in the process of constructing a liquid bipropellant rocket engine. As the safety liaison for the Wind TERPines competition team, he is working with fellow students to compete in the Department of Energy’s Collegiate Wind Competition and spread wind energy awareness to secondary school students through cooperation with the Maryland branch of KidWind.

Marissa Potts is a junior aerospace engineering undergraduate. She is chair of University of Maryland’s American Institute of Aeronautics and Astronautics chapter. She has served on the board since her freshman year in multiple positions. Marissa also serves as treasurer for Women in Aeronautics and Astronautics. During the past two years, she has been a mentor for the Women in Engineering Mentoring Program. Marissa is also a member of the clarinet section for the Mighty Sound of Maryland Marching Band.

Allison Julia “AJ” Rahr is a senior aerospace engineering student on the space track. She has completed a minor in robotics and autonomous systems and is currently finishing a second minor in astronomy. She is one of the co-chairs of Women in Aeronautics and Astronautics, with this being her fourth year on the executive board. AJ is also a member of the Nearspace Balloon Payload Program, working mainly on inflation operations. In the past, she has completed the University Honors, as well as Flexus Living and Learning Community, citations. After graduation, AJ plans to enter the workforce in the autonomous spacecraft field.

Bence Szego is a junior aerospace engineering student with a 4.0 GPA. He is involved in the Sigma Gamma Tau and Tau Beta Pi engineering honors societies, and is an alum of Honors Global Challenges and Solutions. Bence conducts undergraduate research with the University of Maryland Space Systems Lab, exploring the human factors of space exploration.



BIOENGINEERING

2025 HONORS AND AWARDS

The **Fischell Department of Bioengineering Outstanding Junior Award** is presented on the basis of outstanding academic achievement and contributions to the profession and the department by a junior.

*Awarded to **Zoya Naseem***

The **Fischell Department of Bioengineering Outstanding Senior Award** is presented on the basis of outstanding academic achievement and contributions to the profession and the department by a senior.

*Awarded to **Matthew Ensign***

The **Fischell Department of Bioengineering Outstanding Research Award** is presented on the basis of significant contributions to research, the department, and the field of bioengineering.

*Awarded to **Esha Chopra***

The **Fischell Department of Bioengineering Outstanding Leadership Award** is presented to an excellent student who has shown exemplary leadership within the community, department, university, and profession.

*Awarded to **Sarang Han***

The **Fischell Department of Bioengineering Outstanding Service Award** is presented to an excellent student who has contributed significantly to the community, department, university, and profession.

*Awarded to **Chelsea Neumann***

ABOUT THE AWARDEES

Esha Chopra is a senior bioengineering student. In Dr. Kimberly Stroka’s Cell and Microenvironment Engineering Lab, Esha studies endometriosis from mechanobiology and cell dynamics perspectives. She also studied cancer therapy resistance at the University of Colorado. Esha has tutored Chemistry for Engineers, co-managed UMD’s Experience Engineering summer camp, and constructed livestock shelters for a Frederick County farm. She is also an active participant in the Society of Women Engineers, Women in Engineering, and Engineers Without Borders. After graduation, she plans to pursue a PhD in Biomedical Engineering.

Matthew Ensign is a senior bioengineering student with a 4.0 GPA. He is the president of Alpha Eta Mu Beta (National Biomedical Engineering Honors Society), the founder and overseer of a bioengineering peer mentoring program, and a member of the Clark School’s Community Success and Workforce Development Council. He is also a member of the bioengineering department’s Community Engagement and Development Committee, and a member of Omicron Delta Kappa. As a bioengineering undergraduate honors program student, he has completed an independent graduate-level thesis in the Maisel lab. After graduation, he will pursue a Ph.D. in Biomedical Engineering toward becoming a professor.

Sarang Han is a fourth year Clark Scholar pursuing a degree in bioengineering. She is a bioengineering honors student conducting research in Dr. John Fisher’s lab on modulating matrix stiffness with gelatin nanoparticle in an in vitro placental trans well model. Sarang has served as a president and vice president of academic affairs for the Student Health Advisory Committee, and vice president of service and outreach for the Biomedical Engineering Society. Through her campus-wide involvement in various organizations, she is dedicated to equitable healthcare and STEM education. Sarang plans to spend a year at the transplant immunology lab at the University of Maryland School of Medicine prior to pursuing a MD-PhD degree.

Zoya Naseem is a junior bioengineering student with a 3.99 GPA. She is a member of the QUEST Honors Program and the bioengineering undergraduate honors program. As a student researcher, she has presented her work at research symposiums and academic meetings. She serves as a board member for Young Muslims and mentors peers in leadership and personal development. Zoya volunteers at the University of Maryland Shock Trauma Center, and has served as an undergraduate teaching fellow and ClarkLeader. She plans to pursue a career as a physician-engineer.

Chelsea Neumann is a senior bioengineering student specializing in biomechanics and biomaterials. She is an alumna of Flexus and teaching fellow for the Flexus & Virtus Programs. Through Women In Engineering, she updated curriculum on social justice issues, mentored first-year bioengineering students, and engaged middle and high school students in engineering. She served as vice president of competitions and a mentor for the Biomedical Engineering Society. Outside engineering, she mentors independent students and advocates for LGBTQ+ inclusivity.



CHEMICAL AND BIOMOLECULAR ENGINEERING

2025 HONORS AND AWARDS

The **David Arthur Berman Memorial Award** is presented to the student majoring in Chemical and Biomolecular Engineering with the highest cumulative scholastic average at the end of the first semester of their junior year, and who has been elected to (or has been contacted by and is pursuing election to) Tau Beta Pi.

*Awarded to **Abhiraman Senthilkumar***

The **Department of Chemical and Biomolecular Engineering Outstanding Junior Award** is presented to a department junior for academic excellence.

*Awarded to **Benjamin Tabor***

The **Department of Chemical and Biomolecular Engineering Outstanding Senior Award** is presented to graduating seniors for scholarship, leadership, and service to the department.

*Awarded to **Ivan Lin***

The **Department of Chemical and Biomolecular Engineering Student Service Award** is presented for outstanding service to the department.

*Awarded to **Christine (Yemi) Ogunsola***

The **Department of Chemical and Biomolecular Engineering Chair’s Award** is presented for excellence in academics, outstanding service to the department, or leadership in the department.

*Awarded to **Arlene Schindler***

ABOUT THE AWARDEES

Ivan Lin is a senior chemical and biomolecular engineering student with a 3.9 GPA. He is an undergraduate researcher in the Vega-Vila Research Group on heterogeneous catalysis and zeolite synthesis. Ivan has also been a member of the UMD Fencing Club.

Christine (Yemi) Ogunsola is a junior chemical and biomolecular engineering and mathematical statistics student. She is a member of the university’s Advanced Cybersecurity Experience for Students (ACES) Honors program and the Tau Beta Pi honor society. She has been a teaching fellow for multiple chemical engineering classes and is currently a teaching fellow for Heat and Mass Transfer in the chemical and biomolecular engineering department. Christine is on the student board for both the UMD Chapter of American Institute of Chemical Engineers and ChemE Car.

Arlene Schindler is a junior in chemical and biomolecular engineering. Arlene is the current president of the Society of Women Engineers. She is also a peer mentor for both the Women in Engineering and the chemical and biomolecular engineering departments.

Abhiraman “Abhi” Senthilkumar is a junior chemical engineering and computer science dual degree student. He is a member of the Honors College Integrated Life Science Program. Abhi is a research assistant in Dr. Jeffery Klauda’s Laboratory of Molecular and Thermodynamic Modeling. He is the modeling chair for the UMaryland International Genetically Engineered Machine team, which won a gold medal last year for their project designing rapid test kits for cervical pre-cancer. Abhi is a member of the Tau Beta Pi and Omega Chi Epsilon honor societies. He plans to continue onto graduate school and pursue a PhD.

Benjamin Tabor is a junior chemical and biomolecular engineering student with a 4.0 GPA. He is a member of the Clark Scholars Program and is a board member of both the American Institute of Chemical Engineers @UMD (AIChE) and the Chemical Engineering Honor Society @UMD. In AIChE, he works to achieve corporate sponsorships to improve the operations of the club. He recently launched a peer mentoring program for the chemical and biomolecular engineering department. Benjamin is a student researcher in Dr. Peter Kofinas’ Functional Macromolecular Laboratory, where he works on novel electrolyte formulations to improve batteries performance at below freezing temperatures. Benjamin is also a teaching fellow for CHBE’s Fluid Mechanics class. This summer, he will be pursuing an internship for ExxonMobil in Texas.



CIVIL AND ENVIRONMENTAL ENGINEERING

2025 HONORS AND AWARDS

The **Department of Civil and Environmental Engineering Outstanding Junior Award** is presented to a department junior who has demonstrated outstanding academic achievement.

*Awarded to **Henry Renze***

The **Department of Civil and Environmental Engineering Outstanding Senior Award** is presented to a department senior for outstanding scholastic achievement.

*Awarded to **Caroline Kahl***

The **Chi Epsilon Outstanding Senior Award** is presented to a department student for demonstrated leadership and service to the student engineering community.

*Awarded to **Vendela Krenkel***

The **American Society of Civil Engineers Outstanding Senior Award** is presented to a senior member for outstanding scholastic achievement and for significant service to the chapter.

*Awarded to **Yi Moh***

The **CEE DEI Service Award** is presented to a department student for demonstrated service and activism in the areas of diversity, equity, and inclusion to the student engineering community.

*Awarded to **Oluwatobiloba “David” Oloye***

The **Department of Civil and Environmental Engineering Chair’s Award** is presented to a department student for the most significant contribution to the department.

*Awarded to **Mario Majalca***

ABOUT THE AWARDEES

Mario Majalca is a senior civil engineering major. He is a member of Team SCOOT in the Gemstone Honors Program, researching the applications of power assist technology in micromobility devices. He is also the lead project manager for the Student Steel Bridge Club, leading the design and fabrication of this year’s competition bridge. Mario has a special interest in structural engineering and will be working with The Wilson T. Ballard Company as a structural designer upon graduation.

Yi Moh is a senior civil engineering major on the structural and geotechnical track, with a minor in project management. Yi has been involved with the American Society of Civil Engineers since her freshman year. As the current president of the organization, she leads initiatives that foster a sense of community, both socially and professionally, within the engineering student body. She was also a part of the department’s Diversity, Equity, & Inclusion Committee and an Alpha Omega Epsilon sister. After graduation, Yi will work as a structural engineer on bridge rehabilitation and design.

Oluwatobiloba “David” Oloye is a junior civil engineering student. He is a member of the university Honors Program and the QUEST Honors Program, working as a student consultant. Within QUEST, he is a member of its student organizations, QUEST Tech. He is the vice president of the American Society of Civil Engineers and a member of the Chi Epsilon civil engineering honor society. David currently works as a community assistant for the campus’ Department of Resident Life and as a Clark School Ambassador. This summer, after studying abroad in Greece, he will be interning at Kimley-Horn.

Caroline Kahl is a senior civil engineering major on the geotechnical and structural track. She serves as the secretary for the Maryland Beta Chapter of the National Engineering Honor Society, Tau Beta Pi. Additionally, Caroline is an active member of the Chi Epsilon civil engineering honor society, as well as the American Society of Civil Engineers. During the summers of her sophomore and junior years, she interned at Whiting-Turner and will be working as a project engineer after graduation.

Vendela Krenkel is a senior civil engineering major. During her time at the University of Maryland, Vendela has been in multiple leadership positions across campus, including president of the civil engineering honors society, Chi Epsilon, and quartermaster of the American Society of Civil Engineers. She is a member of Tau Beta Pi, the engineering honors society, and is an alum of the University Honors College. Throughout her undergraduate degree, Vendela has researched microbial and nutrient removal through green waste- and stormwater infrastructure.

Henry Renze is a junior majoring in civil engineering. During his time at the University of Maryland, Henry has learned fundamental engineering concepts, navigated fast-moving job sites, led a Bible study, and was a tutor for Python. After graduation, Henry plans to work in the arena of sustainable transportation with a people-centered city design to create communities that are welcoming and united.



ELECTRICAL AND COMPUTER ENGINEERING

2025 HONORS AND AWARDS

The **Department of Electrical and Computer Engineering Outstanding Academic Performance Award** is presented to a junior for academic excellence.

*Awarded to **Prithwish Dasgupta** for electrical engineering*

*Awarded to **Andrew Pavlosky** for computer engineering*

The **Department of Electrical and Computer Engineering Chair’s Award** is presented to a senior for outstanding academic performance.

*Awarded to **Alexander Seidts, Imaad Syed, and Nicholas Venginickal** for electrical engineering*

*Awarded to **Eliav Hamburger, Lawrence Rhoads, and Jason Walter** for computer engineering*

The **Department of Electrical and Computer Engineering Service Award** is presented to graduating seniors who have demonstrated exceptional leadership and service to both their fellow students and the department.

*Awarded to **Vincent Pham and Matthew Weirich***

ABOUT THE AWARDEES

Prithwish Dasgupta is a junior electrical engineering student with a minor in robotics and autonomous systems. He is a recipient of the UMD Presidential Scholarship and a member of the Engineering Honors Program. Actively engaged in research with Dr. Pamela Abshire, he is developing LiDAR testing platforms to enhance high-precision sensing for autonomous navigation and environmental mapping. Prithwish has served as an undergraduate teaching fellow for four semesters and is currently an undergraduate teaching fellow for ENEE205. After graduation, he plans to pursue a career in medical electronics and prosthetics.

Eliav Hamburger is a senior computer engineering student and University Honors graduate. He served as the engineering representative and Speaker of the Legislature in student government, working on the ShuttleUM electric bus fleet conversion and the expansion of kosher and halal food in the University’s diners. Eliav has also worked as an undergraduate assistant and as a teaching fellow for the introductory electrical and computer engineering course. During the past two summers, Eliav interned at the Applied Research Lab for Intelligence and Security.

Andrew Pavlosky is a junior studying computer engineering and mathematics with a 4.0 GPA. He is a member of University Honors and was a computer science teaching assistant for two semesters. He interned at the National Institute of Standards and Technology and Capital One over the last two summers and will work at Amazon Web Services in summer 2025.

Vincent Pham is a computer engineering major and a participant in his department’s BS/MS program. Vincent has served as president of IEEE-Eta Kappa Nu Gamma Xi Chapter, event coordinator for the ECE Peer Mentoring Program, a student-athlete tutor, an engineering orientation advisor, and a longtime undergraduate teaching fellow for ENEE101. A recipient of the Clark Legacy and Charles E. Sydnor III Senatorial Scholarships, he aims to be an innovator in computer architecture by designing, verifying, and optimizing processor technologies.

Lawrence Rhoads is a senior computer engineering student. He has a passion for robotics and outside of class is part of Robotics @ Maryland, the university’s student robotics team. Lawrence plans to work at Northrop Grumman near Baltimore.

Alexander Seidts is a senior electrical engineering student with a 3.99 GPA. He is a teaching fellow for Technology and Consequences: Engineering, Ethics, and Humanity. He has also worked as a tutor for the Electrical and Computer Engineering Department.

Imaad Syed is a senior electrical engineering major and nuclear engineering minor. He is a member of the Gemstone Honors College, working on a more cost-effective stereo camera system for ember flight data measurements. He is also a part of the QUEST Honors Program and is pursuing an electrical and computer engineering honors. Imaad is a teaching fellow for Electric Circuits in the department of electrical and computer engineering. He is part of the Photonics Research Lab, where he is working on non-iterative polarization control for applications eventually in single photon systems.

Nicholas Venginickal is a senior electrical engineering student with a 4.0 GPA and has earned the University Honors citation. In the Students for the Exploration and Development of Space club, he is the avionics subteam lead, working on a cube-satellite payload that will launch into space this year with the US Naval Academy. Nicholas is an Electrical and Computer Engineering Peer Mentor for first-year undergraduate students and also works as an undergraduate teaching fellow for ENEE101.

Jason Walter is a senior computer engineering student and a Banneker/Key scholar. He is the electronics and testing sub-team leader for the Terps Racing Baja SAE student team. He has also previously served as both an undergraduate teaching fellow for Digital Logic Design and as an electrical and computer engineering department tutor. Following his graduation, Jason will work as an embedded software engineer at Apple.

Matthew Weirich is a senior electrical engineering student in the QUEST Honors Program. As an Academic Peer Coach, Engineering Ethics undergraduate teaching fellow, and ECE Peer Mentor, he has supported students academically and professionally. Through the Snider Consulting Group, he has helped student organizations grow and succeed, and has expanded career opportunities by introducing engineers to patent law. He has interned at Finnegan, ExxonMobil, and the Naval Research Lab, and plans to pursue a career in patent law after graduation.



FIRE PROTECTION ENGINEERING

2025 HONORS AND AWARDS

The Salamander Honor Society presents the **Robert J. Taylor Academic Achievement Award** to the department junior with the highest GPA.

*Awarded to **Ryan Vacek***

The **Society of Fire Protection Engineers Outstanding Senior Award**, sponsored by the society’s Chesapeake Chapter, is presented to the department senior with the highest GPA.

*Awarded to **Nicholas Mertz***

The **FPE DEI Service Award** acknowledges a student for their service to the department and/or Clark School that has a focus on increasing the diversity, improving equity, and expanding the inclusion of the engineering community here at the University of Maryland.

*Awarded to **Samantha Farren***

The **NFPA Ambassador Award**, sponsored by the NFPA (National Fire Protection Association) acknowledges students who have served as exemplar FPE Ambassadors, going above and beyond to promote the major.

*Awarded to **Robert ‘RJ’ McCandless***

The **Department of Fire Protection Engineering Chair’s Award** is presented to the department student or students who exemplify academic excellence and make a significant contribution to the Department mission through their service during the year.

*Awarded to **Tori Latham***

ABOUT THE AWARDEES

Samantha Farren is a senior fire protection engineering student and part-time fire protection trainee with NASA. She also is an Operations Lieutenant and executive officer to the Chief of Department for the Volunteer Marine Fire and Rescue Department of Prince George’s County. Samantha participates with Women in Engineering, the Society of Women in Engineering, and Women in Cybersecurity. Samantha serves as an undergraduate advisor to the Clark School’s Community Success & Workforce Development Council and as a member of the Fire Protection Engineering Diversity, Equity, and Inclusion committee.

Tori Latham is a senior fire protection engineering student. She is the current treasurer for the Society of Fire Protection Engineers, University of Maryland Student Chapter. She is currently a teaching fellow for Water-Based Fire Protection Systems. After graduation, Tori has accepted a job offer in the fire protection industry.

Robert ‘RJ’ McCandless is a senior fire protection engineering student. He is an ambassador for the department and received the National Fire Protection Association (NFPA) Ambassador Award for the 2024-25 academic year. RJ was the team lead for this year’s fire protection engineering Alumni Cup team, has performed research with the department, and was a teaching fellow for Introduction to Fire Protection Engineering. He is currently a board member for the Society of Fire Protection Engineers. Post-graduation, RJ will be a fire protection engineer for Ballinger, an architecture and engineering firm located in Philadelphia.

Nicholas Mertz is a senior fire protection engineering major. He is a member of the University of Maryland Society of Fire Protection Engineers and is president of the Salamander Fire Protection Engineering Honorary Society. Nicholas will continue his studies by pursuing a master of engineering in fire protection engineering while working at Jensen Hughes, a fire protection engineering and design firm.

Ryan Vacek is a junior fire protection engineering major and a member of the University Honors program. He is also a part of the Society of Fire Protection Engineers student chapter and has recently been inducted into the Salamander Fire Protection Engineering Honorary Society. After spending last semester in Madrid, he has rejoined the Crossfire team, which aims to suppress wildfires using autonomous aerial vehicles. He is a teaching fellow for the Keystone Program’s Introduction to Engineering and Design course and the fire protection engineering department’s Numerical Methods with MatLab course.



MATERIALS SCIENCE AND ENGINEERING

2025 HONORS AND AWARDS

The **Department of Materials Science and Engineering Outstanding Materials Student Service Award** is presented to graduating seniors for outstanding service to the department, to the student chapter of the Materials Engineering Society, and exceptional advocacy for the students in the department.

*Awarded to **Thomas Dymowski** and **Ashley Hammell***

The **Department of Materials Science and Engineering Student Research Award** is presented to undergraduates who have demonstrated creativity and scholarship in research.

*Awarded to **Jason Stone** and **Kim Taylor***

ABOUT THE AWARDEES

Thomas Dymowski is a senior materials science and engineering student. He has been a member of Engineers Without Borders (EWB), serving in multiple positions, including president. With EWB, he created and developed community partnerships in Nepal, Rwanda, and Guatemala, while also maintaining other active chapter projects. Thomas was a teaching fellow for the Introduction to Materials Engineering course. He is also an undergraduate researcher in the Atomic Layer Deposition Nanocenter, performing research in 3D solid state batteries, and is seeking opportunities in the microprocessing and manufacturing industry.

Ashley Hammell is a senior materials science and engineering student. She has worked as an undergraduate research assistant in multiple research groups, studying the synthesis and characterization of 3D printable magnetic materials, and the discharge behavior of dielectric polymers. For this work, she has received two ASPIRE undergraduate research grants. Ashley has served as outreach chair and treasurer for the Materials Engineering Society (MatEs), as well as with Maryland Images Tour Guides, Student Alumni Leadership Council, The Bureau, Maryland Night Live, College Park Scholars (STS), Club Running, and Intramural Tennis. She is excited to continue working as a materials engineer for Lockheed Martin Rotary Mission Systems in New Jersey this summer.

Jason Stone is a senior materials science and engineering major. During his three years at the University of Maryland, he initially worked within Dr. Tim Koeth’s research group before joining Dr. Gianna Valentino’s research group, studying process-microstructure-property relationships in metal systems in extreme environments. After graduation, Jason is set to begin his career as a materials engineer at Naval Air Station Patuxent River (NAS Pax River), where he has interned for three years.

Kim Taylor is a senior materials science and engineering student working in Dr. Gary Rubloff’s research group where they focus on microelectronics processing and energy sustainability. Kim has conducted research on sustainable food packaging with the United States Department of Agriculture and worked on MAX phase materials with the Navy Research Lab. Their capstone project explores a chitosan-based photoresist as a sustainable and eco-friendly alternative to current photoresists. A Science, Technology, and Society Scholars student, Kim has served as a teaching assistant for multiple semesters, particularly in a robotics outreach class, where they also teach robotics and coding at local elementary schools.



MECHANICAL ENGINEERING

2025 HONORS AND AWARDS

The **Academic Achievement Award** is presented to juniors in Mechanical Engineering who have excelled academically to obtain a cumulative grade point average of 4.0.

*Awarded to **Anthony Collier, Robsun Gina, and Ryder McCathern***

The **Chairman’s Award** is presented to graduating Mechanical Engineering seniors for excellence in academics, outstanding service to the department, or outstanding leadership in the department.

*Awarded to **Joshua Rippeon, Jennifer Tartaglia, Numan Salih, Nicholas Kingsbury, Joshua Ogunmola, and Timothy Woerner***

ABOUT THE AWARDEES

Anthony Collier is a junior mechanical engineering student with a 4.0 GPA. He is a member of the College Park Scholars program, Science and Global Change. He is currently interning with the U.S. Navy working on jet engine improvement. Anthony is looking to continue his education and pursue the University of Maryland’s combined bachelor’s and master’s program, focusing on vibrations and controls.

Robsun Gina is a senior mechanical engineering student, minoring in robotics and autonomous systems. A transfer student from Montgomery College, he conducted research at the National Institute of Standards and Technology on the thermal and rheological properties of a novel 3D-printable metal-polymer composite. Robsun volunteers at the Rockville Science Center and plans to pursue the BS/MS program in mechanical engineering, focusing on robotics to drive innovation.

Nicholas Kingsbury is a senior mechanical engineering student. He is the team captain, welder, and Computer Numerical Control (CNC) machinist of Terps Racing FSAE where he oversees the design, manufacturing, testing, and competition of a racecar to compete internationally. He previously acted as the CNC Technical Coordinator for Terrapin Works where he managed several computer numerical control lathes and mills, and also brought industrial-level 5-axis milling to the Clark School. After graduation, Nick is seeking to enter a career in motorsports engineering.

Ryder McCathern is a junior mechanical engineering student with a 4.0 GPA. He is a member of Terps Racing EV and is the battery design lead. After graduation, he plans to enter a career in thermal engineering.

Joshua Ogunmola is a senior mechanical engineering student with a strong passion for design and innovation. He is a leading member of Tikkun Olam Makers, Hebrew for “repairing the world,” where he designs and manufactures affordable products to improve the lives of individuals with disabilities. He is also an active member of Terps Racing Baja. Joshua is dedicated to increasing diversity in STEM through the Black Engineers Society, and has served as a teaching fellow for Machine Design for the past two semesters.

Joshua Rippeon is a transfer student from Frederick Community College. He is currently pursuing a double major in mechanical engineering and computer science, where he is interested in the fields of robotics and controls.

Numan Salih is a senior mechanical engineering student. He is an active member of the Black Engineers Society, where he serves as a senator, and Terps Racing, where he leads as the Baja team captain. His experiences include serving as a teaching fellow for Dynamics and engaging in entrepreneurial projects through the Entrepreneurial Design Realization course.

Jennifer Tartaglia is a senior mechanical engineering student with a minor in project management. She is a member of the fourth cohort of Clark Scholars and the Omega class of the Eta Delta chapter of Theta Tau. She is also the acting president of the student chapter of the Mechanical Contractors Association. Jennifer is a teaching fellow for Product Engineering and Manufacturing and has been a Clark Ambassador since her sophomore year. She has accepted an offer to join Accenture Federal Services as a technology analyst after graduation.

Timothy Woerner is a senior mechanical engineering student on a pre-med track with a 4.0 GPA. He is a part of the QUEST (Quality Enhancement Systems and Teams) Honors Program, where he currently serves as a mentor, teaching newly admitted students about design thinking and effective team practices. Tim worked as a student researcher in the UMD Hydrodynamics Laboratory, where he led a bio-inspired fin propulsion project. He is also an active member of the Tau Beta Pi engineering honor society, mentoring new members and serving the campus community. Tim has accepted an offer to work as a mechanical engineer for Oceaneering following graduation.



ENGINEERING CAREER SERVICES

2025 HONORS AND AWARDS

The **Outstanding Engineering Co-op/Intern Award** is presented to selected students who have demonstrated exceptional work performance, strong academic achievement, and remarkable potential for a successful career while participating in a cooperative education or internship opportunity.

*Awarded to **Homa Keshmiri** and **Michael O’Neill***

ABOUT THE AWARDEES

FROM THEIR NOMINATORS

Homa Keshmir is a chemical engineering student that joined as a co-op in August 2023 at the Naval Research Laboratory (NRL) and quickly became a key contributor. Ranked in the top 2% of past interns, she demonstrated exceptional critical thinking, creativity, and initiative. Recognized with “On-the-Spot” and SMASH program awards, Homa excelled in material synthesis and testing, often surpassing expectations with minimal oversight. Her work on the Office of the Undersecretary of Defense’s Applied Research for Advancement of S&T Priorities program, specifically the Surface Morphing and Adaptive Structures for Hypersonics (SMASH), was instrumental in advancing critical research goals. Her efforts were pivotal in addressing complex challenges, showcasing her ability to bridge basic and applied research. Her work rivals that of graduate students, and she independently developed research ideas. Homa also went above and beyond by mentoring 2024 interns, showcasing her dedication and leadership.

Michael O’Neill is a mechanical engineering student who interned with Space Communications and Navigation (SCaN) program optimizing NASA Goddard’s Low-Cost Optical Terminal (LCOT). He implemented ControlByWeb software to manage environmental conditions, enhancing LCOT’s value in aerospace laser communications. His work directly impacts the development of groundbreaking ground stations. Despite last-minute presentation revisions, Michael delivered a polished talk, showcasing engineering, leadership, and communication skills. His passion, humor, and professionalism helped him integrate into the NASA community, making him a truly exceptional intern.



WOMEN IN ENGINEERING

2025 HONORS AND AWARDS

The **Women in Engineering Service Award** is presented to engineering students who have demonstrated outstanding service to the Women in Engineering Program.

*Awarded to **Raifah Alam and Friedrich Alvarez***

The **Women in Engineering Leadership Award** is presented to the engineering student who has demonstrated leadership, engagement, and impact to Women in Engineering Program initiatives and student organizations.

*Awarded to **Women in Electrical and Computer Engineering**, represented by **Amanda Callaghan and Natalie Venginickal***

The **Women in Engineering Advancement Award** is presented to engineering students who have demonstrated exceptional dedication to social change, advocacy, and community service on behalf of the Women in Engineering Program (WIE). This award recognizes the students’ lasting contributions which advance and expand the reach of the WIE Program to support all students within the A. James Clark School of Engineering.

*Awarded to **Owen Mank and Chelsea Neumann***

The **Women in Engineering Mentorship Award** is presented to the engineering student who has gone above and beyond to encourage, motivate, and guide their peers and increase student engagement in Women in Engineering (WIE) and other engineering programs and organizations while upholding the values of the WIE Program.

*Awarded to **Mia Jocić and Arlene Schindler***

ABOUT THE AWARDEES

Raifah Alam is a junior studying bioengineering with a strong passion for research, leadership, and mentorship. She is a member of the University Honors Program and the Global Fellows Program, actively engaging in global issues and solutions. As a member of the Molinari Lab, she focuses on genetically modifying bacterial extracellular vesicles (bEVs) for gynecologic applications. Raifah is involved in Theta Tau, where she has previously served as both service and brotherhood chair. She is also a teaching assistant for Global Health and Water Security and Biology for Engineers, and serves as an intern and tutor for Women In Engineering.

Friedrich Alvarez is a junior in electrical engineering with a minor in robotics and autonomous systems. He interns at the Army Research Lab and conducts robotics research at the Motion and Teaming Lab. As president of the Institute of Electrical and Electronics Engineers at UMD, he leads research and industry partnership initiatives. Friedrich is heavily involved in mentor roles in the Center for Minorities in Science and Engineering program. He instructs technical workshops for the Women in Engineering Department pre-college programs and is a Clark Ambassador. This summer, he will intern at Northrop Grumman’s Advanced Technology Lab.

Amanda Callaghan is a sophomore computer engineering major. She is also pursuing a minor in data science and a honors citation from the Advanced Cybersecurity Experience for Students (ACES) Honors Program. Amanda is co-president of Women in Electrical and Computer Engineering (WECE), working to empower and create a community for underrepresented genders in the ECE department. She is most proud of developing WECE’s outreach program, hosting events for both secondary schools and university events. Outside of WECE, Amanda is secretary of the ACES Student Board, a member of the Terps Racing Baja team, a belayer at the university challenge course, and competes in track and field and cross country through UMD Club Running.

Mia Jocić is a first-generation, junior bioengineering student in the Science, Technology, Ethics and Policy (STEP) minor. She is a Dean’s List student who has been actively engaged with Women in Engineering as a tutor, mentor, and mentor coordinator. She has also led outreach efforts for current and future Terps. Formerly on the UMaryland iGEM team, Mia represented the Clark School in Paris at the 2024 International Genetically Engineered Machine Competition. She spent last summer as a product characterization intern at MilliporeSigma and now balances her studies with a part-time role as a process development intern at Clasp Therapeutics.

Owen Mank is a senior electrical engineering major and serves on the Gemstone and Honors Student Leadership councils. Working with his peers to revive UMD’s student chapter of the Institute of Electrical and Electronics Engineers (IEEE), he prioritizes supporting students, doing everything he can to help them through college. He has been an undergraduate teaching fellow for Flexus & Virtus and ENEE200 Engineering Ethics, and hopes to earn a PhD in Power Systems. Owen is a Banneker/Key and Philip Merrill Scholar and has been accepted into several PhD programs.

Chelsea Neumann is a senior bioengineering student specializing in biomechanics and biomaterials. She is an alumna of Flexus and teaching fellow for the Flexus & Virtus Programs. Through Women In Engineering, she updated curriculum on social justice issues, mentored first-year bioengineering students, and engaged middle and high school students in engineering. She served as vice president of competitions and a mentor for the Biomedical Engineering Society. Outside engineering, she mentors independent students and advocates for LGBTQ+ inclusivity.

Arlene Schindler is a junior in chemical and biomolecular engineering. Arlene is the current president of the Society of Women Engineers and is a peer mentor for both the Women in Engineering and chemical and biomolecular engineering departments.

Natalie Venginickal is a sophomore electrical engineering student with a 3.93 GPA. She is a member of Ballroom at Maryland and the Women in Engineering Peer Mentoring Program. Through the Letters to a Pre-Scientist program, she is STEM pen pals with an eighth grade student with whom she shares advice and her higher education story. She is the co-president of Women in Electrical and Computer Engineering, which supports women in the ECE department through outreach, social, and professional events.



CENTER FOR MINORITIES IN SCIENCE AND ENGINEERING

2025 HONORS AND AWARDS

The **Center for Minorities in Science and Engineering Service Award** presented in recognition of dedicated service to the Center for Minorities in Science and Engineering through commitment to promoting diversity in engineering in the college, the university community, and through the Center’s recruitment, outreach, and retention programs.

*Awarded to **Valentina Cruz and Jonathan Teklemariyam***

The **Center for Minorities in Science and Engineering Director’s Award** is presented for excellence in academics, outstanding service to the Center for Minorities in Science and Engineering and a strong commitment to promoting diversity in engineering and representing the Center.

*Awarded to **Santiago Lorenzi***

The **Center for Minorities in Science and Engineering Leadership Award** is presented to undergraduate students who through service and leadership provides outstanding support to the initiatives and programming of the Center.

*Awarded to **Valery Caceido, Monique Whitfield, Kelvin Avelar, and Gideon Smith***

ABOUT THE AWARDEES

Kelvin Avelar is a first-generation Hispanic senior mechanical engineering student. He is a member of the Tau Beta Pi engineering honor society and serves as the treasurer for the Society of Hispanic Professional Engineers. As a transfer student, he sought to challenge himself, grow beyond his comfort zone, and make the most of every opportunity.

Valery Caceido is a civil engineering student with a minor in sustainability. She is an active leader in the Society of Hispanic Professional Engineers, serving as president, and is also the vice president of the National Association of Minority Contractors. Valery is passionate about advocating and creating spaces for those who do not see themselves represented in STEM fields. As a Clark School Ambassador, she represents the engineering school to prospective and admitted students.

Valentina Cruz is a sophomore studying aerospace engineering. She is a member of the Society of Hispanic Professional Engineers and Hermandad de Sigma Iota Alpha Incorporada. She is also an alumni of the precollege program, Louis Stokes Alliance for Minority Participation Bridge. In her free time, Valentina enjoys volunteering at local churches by disbursing food and clothes. She works as a STEM tutor through the Algebra By 7th Grade program for children in third through fifth grades.

Santiago Lorenzi is a sophomore mechanical engineering student with 3.98 GPA. He is an undergraduate researcher for Dr. Leah Dodson’s lab where he works with an ion trap. Santiago is a member of Louis Stokes Alliance for Minority Participation (LSAMP) 2023 Summer Bridge Program. He was a chemistry mentor for the LSAMP 2024 Summer Bridge Program. He continued to be their chemistry mentor through the fall semester and he is currently their physics and math tutor.

Gideon Smith is a senior electrical engineering student with a minor in computer engineering. He serves as an executive board member and treasurer of the Black Engineers Society and plays a key role in the Students Toward Educational Progress and Philanthropy team. Gideon is an electrical engineering technician for the United States Coast Guard and an undergraduate teaching fellow for the electrical engineering department. Additionally, he is a co-author of an ongoing engineering ethics research paper.

Monique Whitfield is a senior civil engineering student, a member of the University Honors Program, and a community assistant at the Courtyards UMD. She has held three summer internships and uses those experiences to mentor students with similar career interests. Significantly involved with the National Society of Black Engineers (Black Engineers Society) at UMD, she has served as co-membership chair, vice president, and president of the organization. In these roles, Monique has planned and hosted a variety of events, volunteered with primary and secondary school students, worked concession stands on behalf of the organization, and been a driving force in creating an inclusive space. After graduating, she plans to pursue a career as a structural engineer using 3D visualization softwares to analyze and design large structures.



MARYLAND TECHNOLOGY ENTERPRISE INSTITUTE AWARDS

2025 HONORS AND AWARDS

Presented by the **Maryland Technology Enterprise Institute** to the undergraduate students with the most outstanding performance on a semester-long ASPIRE engineering research project during the past year.

*Awarded to **Atticus Nemeroff** and **Zachary Fletcher***

ABOUT THE AWARDEES

Zachary Fletcher is a senior chemical engineering student with a 3.92 GPA. He has been a teaching fellow for Chemical Kinetics and Reactor Design, Computer Methods in Chemical Engineering, and currently for Separation Processes. He has been extensively involved with the Metabolic Engineering Laboratory for the past year, working on modeling the oscillatory kinetics of yeast metabolism. Additionally, Zach has worked in the Complex Fluids and Nanoparticles Laboratory studying the electro-adhesion properties of hydrogels and various metals. Post-graduation, he plans to work in biotechnology or the energy sector and eventually go on to graduate school.

Atticus Nemeroff is a sophomore chemical engineering student. He began performing undergraduate research in his freshman year and has been working in the Functional Macromolecular Laboratory on projects furthering lithium-ion battery technology. Atticus is also an officer in the University of Maryland Archery Club, where he teaches fellow students the art of traditional archery.



DEAN’S AWARDS

2025 HONORS AND AWARDS

The **Dinah Berman Memorial Award** is presented to a third-year engineering student who has combined academic excellence with demonstrated leadership or service to the Clark School.

*Awarded to **Amelia Skeers***

The **A. James Clark School of Engineering Leadership Award** is presented to a student who has demonstrated outstanding leadership to the Clark School in activities that impact all engineering majors.

*Awarded to **Nicole Uhl***

The **Kim Borsavage and Pamela J. Stone Student Award for Outstanding Service** is presented to a student who has demonstrated outstanding dedication and service to the Clark School and is a truly unique individual whose contributions to the school exemplify a high level of dedication and service.

*Awarded to **James Yates***

The **A. James Clark School of Engineering Global Leadership Award** is presented to a student who through their leadership or service has promoted the global engineering leadership experience on behalf of the Clark School and has demonstrated significant involvement in global engineering activities.

*Awarded to **Thomas Dymowski***

The **A. James Clark School of Engineering Dean’s Award** is presented to a senior for scholastic excellence and who has demonstrated outstanding service and leadership to the Clark School of Engineering in activities that impact students in all engineering majors.

*Awarded to **Sierra Raspa***

ABOUT THE AWARDEES

Thomas Dymowski is a senior materials science and engineering student. He has been a member of Engineers Without Borders (EWB), serving in multiple positions, including president. With EWB, he created and developed community partnerships in Nepal, Rwanda, and Guatemala, while also maintaining other active chapter projects. Thomas was a teaching fellow for the Introduction to Materials Engineering course. He is also an undergraduate researcher in the Atomic Layer Deposition Nanocenter, performing research in 3D solid state batteries, and is seeking opportunities in the microprocessing and manufacturing industry.

Sierra Raspa is a senior studying electrical and mechanical engineering. She earned a Gemstone Honors Citation where she led a research team working on swarm robotics, and she is currently a member of the electrical team for Testudog through the Robotics at Maryland Club. Sierra has been a teaching fellow for several engineering courses, and is a competitor for the XFoundry startup competition on the school safety track. She also collaborated with the Women in Engineering (WIE) to create and lead the WIE Code coding bootcamp and she is also a member of the WIE Student Advisory Board. During her time at UMD, Sierra has interned at RCT Systems, NASA Goddard, Quantum Space, and the Lawrence Berkeley National Laboratory.

Amelia “Mia” Skeers is a junior aerospace engineering student. She is an alumna of the Women in Engineering Flexus Living and Learning Program, and is a member of the aerospace engineering honors program. Mia has been the communications officer for Women in Aeronautics and Astronautics for two years, and is an active member of Tau Beta Pi and Sigma Gamma Tau. She has also served as a ClarkLeader for the Clark School’s annual ClarkLEAD program and is currently researching methods to expand the asteroid tracking capabilities of the Vera C. Rubin Observatory.

Nicole Uhl is a senior mechanical engineering student. Within the Women in Engineering Program, she has held various positions, including lead mentor coordinator of the Sheila Rohra WIE Connect Peer Mentoring Program, student advisory board member, and intern for the Get Outside and Learn Engineering Kit Program. Nicole is the vice president of the Tau Beta Pi engineering honor society. She is also actively involved in the student-led Satellite Development Program under the University of Maryland Space Systems Lab.

James “Jimmy” Yates is a senior civil and environmental engineering student with a passion for sustainable energy and decarbonization strategy. He served as a leader in the Society of Hispanic Professional Engineers and Theta Tau Professional Engineering Fraternity. Jimmy has worked as a peer advisor for the Clark School’s Engineering Career Services office and is currently a teaching assistant for the freshman Virtus class, where he mentors students to help them accomplish their professional goals. Jimmy is looking forward to making an impact in sustainable energy after graduation.



PLANNING COMMITTEE

2025 HONORS AND AWARDS

Congratulations to all the students being recognized for their contributions to the Clark School, the University of Maryland, and the larger campus community. We also thank the family and friends of the awardees for joining us in recognizing these outstanding students.

The Clark School wishes to thank the following individuals for their assistance in the planning and facilitation of this event:

- Amanda Alicea, Chemical and Biomolecular Engineering
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- Shannon Hayes Buenaflor, Engineering Academic Services
- Kevin Calabro, Keystone Program
- Tabatha Cuadra Rodriguez, Women in Engineering
- Damien Franze, Clark Foundation Scholarship Programs
- Kathy Gardinier, Chemical and Biomolecular Engineering
- Catherine Hamel, Keystone Program
- Aileen Hentz, Aerospace Engineering
- Rebeca Hosten, Engineering Academic Services
- Ramsey Jabaji, Engineering Student Affairs
- Amanda McClish, Engineering Advancement Office
- Adaire Parker, Materials Science and Engineering
- Melanie Prange, Bioengineering
- Kerri Poppler James, Mechanical Engineering
- Nicole P. Roop, Undergraduate Student Affairs (Honors & Awards Planning Chair)
- Hollin Van Buren, Electrical and Computer Engineering
- Kathryn Weiland, Electrical and Computer Engineering
- Erin Wessell, Undergraduate Recruitment and Outreach
- Christina Yang, Clark School of Engineering

Front cover photo: Dylan Singleton





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