

MAY 2023 UNIVERSITY OF MARYLAND COLLEGE PARK



Undergraduate  
**Honors and Awards**  
Ceremony



**THE A. JAMES CLARK SCHOOL OF ENGINEERING**

**2023 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

John Fisher, *Fischell Family Distinguished Professor & Department Chair*

CHEMICAL AND BIOMOLECULAR ENGINEERING

Peter Kofinas, *Professor and Chair*

CIVIL AND ENVIRONMENTAL ENGINEERING

Natasha Andrade, *Associate Chair for Undergraduate Programs*

ELECTRICAL AND COMPUTER ENGINEERING

Sennur Ulukus, *Professor and Chair*

FIRE PROTECTION ENGINEERING

James Milke, *Professor and Chair*

MATERIALS SCIENCE AND ENGINEERING

Ji-Cheng (JC) Zhao, *Chair and Minta Martin Professor*

MECHANICAL ENGINEERING

Bala Balachandran, *Chair and Minta Martin Professor*

Patrick McCluskey, *Professor and Director of Undergraduate Studies*

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*

Ken Kiger, *Associate Dean, Undergraduate Student Affairs*

---

**Closing Remarks**



## AEROSPACE ENGINEERING

### 2023 HONORS AND AWARDS

The **Department of Aerospace Engineering Gessow Academic Achievement Award** is presented to a graduating senior in the department who has attained the highest overall academic average.

*Awarded to Anish Sankla*

---

The **Joseph Guthrie Memorial Scholarship Award** is presented to those juniors in the department who have attained the highest overall academic average.

*Awarded to Peter Capozzoli and Gustavo Lang, Jr.*

---

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 Allen Schnaitmann*

---

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 Kruti Bhingradiya, Michael Kalin, and Madelyne Rossmann*

---

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

*Awarded to Madelyne Rossman*

---

### ABOUT THE AWARDEES

**Kruti Bhingradiya** is a junior international student pursuing aerospace engineering with a minor in robotics and autonomous systems. She is an undergraduate researcher with the Collective Dynamics and Controls Lab working on multi vehicle control and is also part of the Near Space Balloon Payload Program, developing flight hardware for near-space payloads. Kruti serves as secretary of Sigma Gamma Tau and is on the board of the UMD chapter of American Institute of Aeronautics and Astronautics. She is a teaching fellow for the Maryland Robotics Center and the department of aerospace engineering for the robotics programming course.

---

**Peter Capozzoli** is a junior aerospace engineering student with a 4.0 GPA. He is a member of the Honors Humanities Program and the aerospace departmental honors program. He is also a member of the University of Maryland's Alfred Gessow Rotorcraft Center. Outside of academics, Peter runs for the University of Maryland's varsity track team.

---

**Michael Kalin** is a senior aerospace engineering major on the space track. He is a leader within the UMD Balloon Payload Program and is the treasurer of both the American Institute for Aeronautics and Astronautics and the Sigma Gamma Tau Aerospace Honors Society UMD chapters. Michael has also represented the aerospace department as a part of its Alumni Cup team for all four years of his college career. After graduation, Michael will be working at the Johns Hopkins University Applied Physics Lab in the Space Electronics group, developing the avionics for NASA's upcoming Dragonfly mission.

---

**Gustavo Lang, Jr.** is a junior aerospace engineering major and father to two boys. He has designed rear wings for the Terps Racing Electric Vehicle and is actively engaged with the Center for Minorities in Science and Engineering, all while maintaining a 4.0 GPA. Gustavo completed a co-op at Apple as a Mac Product Design Engineer, where he was selected Intern of the Year. He will intern this summer at Boeing as a liaison engineer on the NASA Space Launch System. His goal post-graduation is to work in the space sector.

---

**Madelyne Rossmann** is a senior aerospace engineering major and robotics and autonomous systems minor. She is currently president of UMD's Women in Aeronautics and Astronautics, an organization devoted to empowering women in the field of aerospace engineering. She is a teaching fellow for Control of Aerospace Systems, and has been a teaching fellow for Computing Fundamentals for Engineers. Madelyne started as an intern at the Jet Propulsion Laboratory this spring and is planning to attend the University of Maryland for graduate school in the fall as she continues her internship.

---

**Anish Sankla** is a senior aerospace engineering student with a 4.0 GPA. He is a member of the Aerospace Engineering Honors Program, with which he is researching and developing a liquid bi-propellant rocket engine under the guidance of Dr. Christopher Cadou. Anish also helped found SEDS@UMD, a club on campus promoting space-based technical projects, and is leading their liquid rocket team in developing a 350lb thrust engine. After graduation, Anish will be a mechanical engineer at Venturi Astrolab, a startup in Los Angeles designing and building rovers for the Moon and Mars.

---

**Allen Schnaitmann** is a senior aerospace engineering student with a minor in project management. He is the current president of the UMD chapter of the American Institute of Aeronautics and Astronautics as well as the president of the UMD chapter of the Society of American Military Engineers. From his freshman through junior years, Allen was an active member of the Terrapin Rocket Team and served as the hybrid propulsion lead last year. After he graduates, Allen will work with Boeing's Phantom Works as a propulsion engineer while he pursues his master's degree part-time.

---



## BIOENGINEERING

### 2023 HONORS AND AWARDS

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

*Awarded to **Lauren Gabranski***

---

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

*Awarded to **Anjali Gajendiran***

---

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 **Harry Zou***

---

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

*Awarded to **Yousefsaid Abderrahim and Nicolle Vigil Aguinada***

---

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 **Melina Khansari***

---

### ABOUT THE AWARDEES

**Yousefsaid Abderrahim** is a senior bioengineering student. He serves as a Biomedical Engineering Society (BMES-UMD) board member. As a ClarkLEADER, he facilitated a diversity, equity, and inclusion seminar, assisted with the ClarkWelcome summer program, and volunteered for ClarkLEAD. Yousef is a participant in both the University of Maryland Math Club and the Maryland Science Cafe book club. He has also volunteered with Seaton Empowering Action in the Community, Inc. as a student math coach.

---

**Lauren Gabranski** is a junior bioengineering student with a 3.89 GPA. She is a member of the University Honors Program and a teaching fellow for Bioengineering Thermodynamics. She is a member of the professional engineering fraternity, Theta Tau, where she has served in multiple leadership roles, including her most recent as Risk Management Chair. Lauren is a lead physical therapy technician at PIVOT Physical Therapy, and, after completing her undergraduate degree, Lauren plans to pursue a Doctorate of Physical Therapy.

---

**Anjali Gajendiran** is a senior bioengineering and Germanic studies dual-degree student. She is a member of the University Honors Program and the Research, Instruction, and Service in Engineering (RISE) Leadership Academy in the Clark School. Anjali has been an undergraduate teaching fellow for Biology for Engineers and Bioengineering Thermodynamics. She has also been an active member of the UMaryland international Genetically Engineered Machine (iGEM) team. Upon graduation, Anjali plans to pursue a Ph.D. in bioengineering with a focus on synthetic biology.

---

**Melina Khansari** is a senior biocomputational engineering major. She was born and raised in France and moved to the United States in 2017 where she learned English while getting her associate's degree. She founded two clubs at the Universities at Shady Grove: the Stock Market Club and the CTRL + AI Club. She started her own advertising and marketing agency which has worked with over 500 companies worldwide. Melina is also president of the Student Leadership Advisory Council and a member of the Universities at Shady Grove Board of Advisors.

---

**Harry Zou** is a senior bioengineering student who has worked in Dr. Gregg Duncan's lab on a high-throughput screening system for inhaled gene therapies. Harry participated in College Park Scholars and was a member of the Research, Instruction, and Service in Engineering (RISE) Leadership Academy in the Clark School. He was also an undergraduate teaching assistant for Principles of Genetics. After graduation, Harry plans to continue his studies toward a Ph.D. in biomedical engineering.

---



## CHEMICAL AND BIOMOLECULAR ENGINEERING

### 2023 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 **Benjamin Robinson***

---

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

*Awarded to **Riordan Correll-Brown***

---

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 **Reese Barrett and ZiQi (Crystal) Lin***

---

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

*Awarded to **Rebecca Gibbons and Olivia Becker***

---

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 **Matthew LiCausi***

---

### ABOUT THE AWARDEES

**Reese Barrett** is a senior Banneker/Key Scholar majoring in chemical engineering with a minor in sustainability studies. She is also a recipient of the National Oceanic and Atmospheric Administration's Hollings Scholarship. Reese spent last summer at the Pacific Marine Environmental Laboratory in Seattle, WA, and is also a member of the Environmental Aerosol Research Laboratory at UMD. Beyond academics, she is treasurer of the Maryland Ski Team and works in climate justice education and advocacy. In the fall, she will be starting her Ph.D. in Chemical Oceanography at the University of Washington.

---

**Olivia Becker** is a senior chemical engineering student with a minor in global engineering leadership. She is the vice president of the University of Maryland's American Institute of Chemical Engineers (AIChE) and a member of Omega Chi Epsilon (OXE), the Chemical Engineering Honor Society. Within AIChE and OXE, Olivia has had great opportunities to serve and lead the people in her community. In her free time, Olivia plays lacrosse with the Maryland Women's Club Lacrosse team. Olivia has accepted a full time position with ExxonMobil where she will work in Baton Rouge as a Contact Engineer.

---

**Riordan Correll-Brown** is a junior majoring in chemical engineering. She is part of the Gemstone research honors program where she leads Team SOLAR, a group of students developing a more sustainable solar panel recycling method. She is also an undergraduate intern in the Functional Macromolecular Laboratory, researching solid polymer electrolytes for Li-ion batteries. In addition to her research, Rae is a member of the Women in Engineering (WIE) student advisory board, and has also served as a WIE peer mentor and peer tutor. Last summer, she worked as an undergraduate teaching fellow for Introduction to Chemical and Biomolecular Engineering.

---

**Rebecca Gibbons** is a senior chemical engineering student. She is currently president of the American Institute of Chemical Engineers. She was a member of Flexus Living Learning Program and served as both a mentor and mentor coordinator for the Women in Engineering Peer Mentoring Program. Becca is also a member of Omega Chi Epsilon, the chemical engineering honors society, and enjoys participating in Alumni Cup and intramural sports. Upon graduation, she will begin her professional career with ASR Group by working as a Process Engineer at the Domino Sugars Refinery in Baltimore, MD.

---

**Matthew LiCausi** is a senior chemical engineering student with a 3.9 GPA. He is a member of Omega Chi Epsilon, the Chemical Engineering Honor Society. Matt is the treasurer of the University of Maryland Chapter of the American Institute of Chemical Engineers. In his fourth semester as an undergraduate teaching fellow, Matt is teaching a biopharmaceutical process development and manufacturing course in the Chemical and Biomolecular Engineering Department. He was also a member of the department's first Alumni Cup winning team.

---

**ZiQi (Crystal) Lin** is a senior chemical engineering student with a research background in catalysis and batteries. She is a member of the Design Cultures and Creativity honors college, Omega Chi Epsilon honor society, and the American Institute of Chemical Engineers (AIChE), winning the AIChE National Capital Section Outstanding Student Award. She was also an undergraduate teaching fellow (UTF) for three years and earned a UTF of the Year Award. After graduation, she will begin her career at Tesla, working on next-gen lithium-ion batteries for EV applications.

---

**Benjamin Robinson** is a senior chemical engineering major. He has tutored chemistry as a member of the chemistry fraternity, Alpha Chi Sigma, and manages the tutoring program for Tau Beta Pi. Benjamin also helps organize math tutoring at a local elementary school through the Turtle, Eagle and Math club. He performs research on the computer simulation of polymer reactions under Professor Kyu Yong Choi and intends to pursue a Ph.D. in chemical engineering following graduation to study renewable energy.

---



## CIVIL AND ENVIRONMENTAL ENGINEERING

### 2023 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 **Craig Mackel***

---

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

*Awarded to **Josef Chamera***

---

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

*Awarded to **Andrew Vogelpohl***

---

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 **Miranda Pierce***

---

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 **Rubina Hasanat***

---

The **Robert L. Morris Award in Environmental Leadership** is given to a department junior or student who has demonstrated through extracurricular activities a commitment to environmental stewardship, ethical engineering practice, or sustainable technology.

*Awarded to **Annushka Aliev***

---

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 **Harry Hall***

---

### ABOUT THE AWARDEES

**Annushka Aliev** is a junior civil engineering student on the environmental and water resources track who has maintained a 4.0 GPA. She is a member of the University Honors Program, the QUEST Honors Program, and the Engineering Honors Program. In addition to her coursework, Annushka is involved in environmental justice and infrastructure resilience research on campus. She is also heavily involved in Engineers Without Borders, of which she is the current president, works as a teaching assistant for the Introduction to Design and Quality course in the QUEST Program, and teaches SAT preparatory math.

---

**Josef Chamera** is a senior civil engineering student and serves as secretary of Chi Epsilon, the National Civil Engineering Honor Society. On campus, he works as a Resident Assistant for the North Hill community to grow connections and empower students. Josef will pursue a career in transportation engineering with Johnson, Mirmiran & Thompson. He plans to give back to his home city, Baltimore, MD, and explore the West Baltimore Project.

---

**Harry Hall** is a senior civil engineering student. As an intern, he designed and built a flow-measuring weir to monitor Campus Creek as it undergoes a multi-year remediation project and contributed to the design of environmentally and socially conscious engineering curricula in the civil and mechanical engineering departments. He is an undergraduate tutor for the Engineering for Sustainability course. Upon graduation, Harry will start work as a stream engineer at Bayland, a Maryland-based water resources firm specializing in ecological restoration.

---

**Rubina Hasanat** is a senior civil engineering student. She was a Sierra Leone project sub-lead for Maryland Sustainability Engineering and a geoenvironmental engineering undergraduate researcher. Rubina interned with Tesla Motors and Tesla Energy, contributing to their infrastructure design projects. Rubina is currently the undergraduate representative for the Civil & Environmental Engineering Department's Diversity, Equity, and Inclusion (CEE DEI) Committee, where she raises awareness about the pertinence of DEI to civil engineering. Additionally, she is the webmaster for the UMD chapter of the American Society of Civil Engineers.

---

**Craig Mackel** is a junior civil engineering student with a 3.498 GPA. They are a co-membership chair of the Black Engineer Society. As co-membership chair, they are responsible for managing the membership database, recruiting new members, as well as leading the Freshmen Committee, in which the Black Engineer Society helps freshmen get acclimated to college. Craig also participated in the Louis Stokes Alliances for Minority Participation's summer bridge program in the summer of 2020.

---

**Miranda Pierce** is a senior civil engineering major with a specialization in environmental and water resources engineering and a minor in project management. She is president of the University of Maryland student chapter of the American Society of Civil Engineers. She further promotes the civil engineering community as treasurer of Chi Epsilon, the civil engineering honors society. Miranda is a member of the second cohort of the A. James Clark Scholars Program and an Alpha Omega Epsilon sister. She will proudly begin her career as an engineer with Clark Construction after graduation.

---

**Andrew Vogelpohl** is a senior civil engineering student with a 3.9 GPA. He is president of Chi Epsilon, the civil engineering honor society, and has led the honor society in both initiating new members and hosting the Chi Epsilon Career Fair, which had over 70 companies in attendance. In his time at the university, he has been a peer mentor for the Carillon Communities Program and has been an active member of American Society of Civil Engineers and Flower STEM. Andrew will begin practicing his studies at Whitman Requardt and Associates (WRA) in the summer, focusing on water resources.

---



## ELECTRICAL AND COMPUTER ENGINEERING

### 2023 HONORS AND AWARDS

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

*Awarded to **Scott Fleischmann***

---

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 **Michael Gill and Agustin Jauregui***

---

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

*Awarded to **Michael Gill, Lucas Kaplan, and Patrick Kim**  
for electrical engineering*

*Awarded to **Leopold Bertholet, Agustin Jauregui, and Mani Pabba**  
for computer engineering*

---

### ABOUT THE AWARDEES

**Leopold Bertholet** is a senior pursuing a double degree in computer engineering and mathematics. He is a Banneker/Key scholar and a member of the ACES Cybersecurity Honors Program. Leopold served as a teaching assistant for the Calculus I and II courses at the University of Maryland and received the math department's Higginbotham Award. He also interned for the nuclear engineering firm Orano, where he worked on blockchain database development. After graduation, Leopold plans to join a wireless security startup to work on mathematics and digital communications.

---

**Scott Fleischmann** is a junior electrical engineering student. He is a member of the Gemstone Honors Program, where his team is researching how to use direct laser writing to create nanoscale biodegradable capsules for pharmaceutical usage. Scott is also a member of the Quality Enhancement Systems and Teams (QUEST) Honors Program. In Engineers Without Borders, Scott is currently the lead of the solar pump team, helping to supply a community in rural Nicaragua with reliable access to clean water. He was an undergraduate teaching fellow for ENEE205: Electric Circuits, and is currently an undergraduate tutor for the ECE department.

---

**Michael Gill** is a senior electrical engineering student with a 3.99 GPA. He is pursuing the combined B.S./M.S. program within the electrical and computer engineering (ECE) department, focusing on quantum optics. He has been an undergraduate teaching fellow in the department for five semesters. This academic year, he served as a recruiting assistant to aid the department in recruiting teaching fellows for subsequent semesters. Michael has also participated as an ECE peer mentor, and is currently a Clark Ambassador, helping to attract prospective engineering students to the Clark School.

---

**Agustin Jauregui** is a senior mechanical engineering and computer engineering double major with a 3.98 GPA. He performed research with the mechanical engineering department's Computational Dynamics Laboratory under the direction of Dr. Balachandran and interned with I.B.M. and M.C. Dean. Agustin has served on the executive board of the Society of Hispanic Professional Engineers and is a leader at the Catholic Student Center as the president of the Thomistic Institute, a philosophy club. After graduation, Agustin will work as a quantitative researcher at Polyphonic Capital.

---

**Lucas Kaplan** is a senior electrical engineering student and a Banneker/Key Scholar. He was a member of the Design Cultures & Creativity Living-Learning Program in the Honors College. He has held professional and research internships at the Laboratory for Microtechnologies, the U.S. Naval Research Laboratory, and NASA Goddard Space Flight Center. He spent one semester studying abroad at Universidad Carlos III de Madrid in Spain. After graduation, he plans to study the intersection of neuroscience and artificial intelligence.

---

**Patrick Kim** is a senior electrical engineering and physics student with a 3.98 GPA. He is a member of the University Honors Program. Patrick actively researches theoretical and computational plasma physics for nuclear fusion under Prof. Bill Dorland, with a focus on optimizing future fusion reactors. He is a 2022 Goldwater Scholar and was recently selected for the Department of Energy Computational Sciences Graduate Fellowship. Patrick will begin his Ph.D. studies this fall in the Princeton Program in Plasma Physics.

---

**Mani Pabba** is a senior computer engineering student and statistics minor with a 4.0 GPA. He is a Banneker/Key Scholar and a member of the Advanced Cybersecurity Experience for Students (ACES) honors program. Mani has been an undergraduate teaching assistant for Introductory Java for the past six semesters and has worked as an undergraduate researcher at the MEMS & Microfluidics Laboratory for multiple semesters. He has interned at Amazon Web Services for the last two summers and will be working there full-time after graduation.

---



## FIRE PROTECTION ENGINEERING

### 2023 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 **Vikram Hanspal***

---

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 **Siriwipa Kamma***

---

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 **Jacob Witlin***

---

The **Department of Fire Protection Engineering Chair's Award** is presented to the department student or students who made the most significant contribution to the Department mission through their service and leadership during the year.

*Awarded to **Kyra Cromwell Reed***

---

### ABOUT THE AWARDEES

**Kyra Cromwell Reed** is a senior fire protection engineering student. She is president of the Society of Fire Protection Engineers University of Maryland student chapter, organizing professional and social events for students in the department, and served previously as social chair of the organization. She is secretary of the Salamander Fire Protection Honorary Society and a member of Tau Beta Pi, as well as a Clark School Ambassador. Kyra will begin her master's degree in fire protection engineering at the University of Maryland in the fall.

---

**Vikram Hanspal** is a junior fire protection engineering student. He is a member of the Gemstone Honors Program, researching photovoltaic panel recycling processes. In Engineers Without Borders, he is currently working on a latrine project in Uganda. Vikram has participated in various research studies in the fire protection engineering department, assisting in studies related to fire forensics and the impacts of fire in informal settlements. Vikram plans to continue his studies toward earning a graduate degree in the Clark School's combined B.S./M.S. program.

---

**Siriwipa Kamma** is a senior fire protection engineering student and an international student from Thailand. She served as an undergraduate teaching fellow for the Introduction to Life Safety Analysis course in her department. Siriwipa has been accepted to graduate school at UMD to pursue a master of science in fire protection engineering.

---

**Jacob Witlin** is a senior fire protection engineering student with a 3.5 GPA and pursuing a minor in global terrorism studies. He has been an ambassador for both fire protection engineering and the Clark School, recruiting new students into the engineering fields. Jacob was the team captain for the 2022 FPE Alumni Cup team, whose design won the competition that year. After graduation, Jacob has accepted a position with Jensen Hughes, a fire protection engineering consulting and design firm in Baltimore.

---





## MATERIALS SCIENCE AND ENGINEERING

### 2023 HONORS AND AWARDS

The **Department of Materials Science and Engineering Chair's Outstanding Senior Award** is presented to graduating seniors for outstanding scholarship, leadership and service to the department.

*Awarded to **Diana Liepinga and Derrick Sanders***

---

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 **Robert Henry and Shaun Walters***

---

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

*Awarded to **Marco Casareto and Alex Wang***

---

### ABOUT THE AWARDEES

**Marco Casareto** is a senior materials science and engineering student with a 3.9 GPA. He is a member of the University Honors Program and the social-professional engineering fraternity, Sigma Phi Delta. His main research interests are batteries and photovoltaics, and he is planning to attend graduate school this fall to pursue a Ph.D. in materials science and engineering.

---

**Robert Henry** is a senior materials science and engineering student. He is the vice president of the Materials Science Society and participates in undergraduate research in battery materials. Robert has worked as both a Clark School Ambassador and a ClarkLEADER, and serves as a reservist in the United States Marine Corps.

---

**Diana Liepinga** is a senior materials science and engineering student. She has two first author publications in beyond lithium-ion battery modeling, accomplished under collaboration with Binghamton University, as well as a conference paper summarizing materials properties of nuclear-grade graphite. Within the department, Diana leads the Materials Engineering Mentoring Organization and is a teaching fellow for Materials Science and Engineering: The Field and the Future. After graduation, she will work to advance clean energy at MPR Associates, an engineering consulting company.

---

**Derrick Sanders** is a senior materials science and engineering student with a 3.4 GPA. He is a recipient of the full Banneker/Key Scholarship. He works part-time as a research assistant in the environmental science and technology sector converting waste to energy through anaerobic digestion of organic matter. Derrick will be attending the University of Illinois Urbana-Champaign for graduate school in the mechanical engineering field as he works towards his Ph.D.

---

**Shaun Walters** is a senior materials science and engineering student. He is a student researcher at Euclid TechLabs in Beltsville, Maryland, working on a cesium antimonide molecular beam epitaxy system. As part of the RISE (Research, Instruction, and Service in Engineering) Leadership Academy, he is working on a team to improve coding support for Clark School students.

---

**Alex Wang** is a super-senior pursuing degrees in materials science and engineering and computer science with a 3.96 GPA. He published a first author paper, "Benchmarking Active Learning Strategies for Materials Optimization and Discovery," in Oxford Open Materials Science for work completed on campus and at the National Institute of Standards and Technology. Alex is pursuing a career in industry.

---



## MECHANICAL ENGINEERING

### 2023 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 **Nathan Martin and Joshua Rippeon***

---

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 **Amaya Caggino, Mikaila Esuke, Holly King, Wensen Liu, Giuse Pham, Audrey Rappaport, Aidan Stark, and Lillian Williams***

---

### ABOUT THE AWARDEES

**Amaya Caggino** is a senior mechanical engineering student from Havre de Grace, MD. She is a member of the second cohort of the A. James Clark Scholars Program and the University Honors Program. In the Mechanical Contractors Association of America, Amaya is currently serving as president of the UMD student chapter and led her team to a ninth place finish in the national student competition. Amaya has accepted a full-time position as Project Engineer with the Poole and Kent Corporation where she previously interned for the last two summers.

**Mikaila Esuke** is a Banneker/Key Scholar majoring in Mechanical Engineering and minoring in Construction Project Management. She is a member of the Gemstone Honors Program, on Team PISO – a research team working to make piezoelectric energy harvesting more efficient. Since the summer of 2022, Mikaila has been working at Clark Construction and upon her graduation in May will continue her work there as an engineer.

**Allison Griffith** has served in several leadership positions on the Society of Women Engineers Executive Board. She is also a member of the College Park Scholars: Science, Technology, and Society Program, the Women In Engineering Student Advisory Board, Alpha Omega Epsilon, and is an alum of the Flexus Program. She currently works as a peer assistant in Engineering Career Services, interns for the Women In Engineering Program, and works as a Clark School Ambassador. Following graduation, Allison will start her career as a mechanical engineer at L3Harris in Wilmington, Massachusetts.

**Holly King** is a senior mechanical engineering student with a minor in Global Terrorism Studies and a 4.0 GPA. She was a member of the University Honors program and a Federal Fellow. Holly has worked as the Operations Intern for Mtech Ventures and as a teaching fellow for Physics II.

**Wensen Liu** is a senior mechanical engineering student with a minor in robotics and autonomous systems. On campus, he is a lab coordinator for the Instructional Fabrication Lab at Terrapin Works as well as the captain for 2 robots on the Leatherbacks combat robotics team. Wensen also works with the Unmanned Maritime Mobility Division under Naval Surface Warfare Center Carderock on the development of autonomous maritime vessels. He plans to continue his work with the Unmanned Maritime Mobility Division after pursuing a Ph.D.

**Nathan Martin** is a junior mechanical engineering and computer science student. He has completed an internship at the Naval Research Laboratory and will be interning at T. Rowe Price as a software engineer next summer. After graduation, Nathan plans to pursue a career in software engineering in Washington, D.C.

**Giuse Pham** is a senior mechanical engineering student with a 4.0 GPA. He is a part of the Clark Scholars Program and an active member of two engineering honors societies, Pi Tau Sigma and Tau Beta Pi, where he has served as the lounge chair for Tau Beta Pi. He has also helped the Terps Racing EV ergonomics sub-team. Currently, Giuse is wrapping up his remote part-time co-op with Northrop Grumman's Launch Vehicles Division in Chandler, AZ. He will transfer to intern at Northrop Grumman's Tactical Space Systems Division in Dulles, VA this summer before graduating in December 2023.

**Audrey Rappaport** is a senior mechanical engineering student. She is a primary organizer for the Effective Altruism club, which aims to help students determine how they can use their time and money most effectively to make the world a better place. After graduation, Audrey has accepted a position at Root3 Labs, a medical device and defense industry consulting company.

**Joshua Rippeon** is a mechanical engineering student with a 4.0 GPA. He earned an associate's degree at Frederick Community College and transferred to the University of Maryland in the fall of 2022. In addition to his major, Joshua is pursuing a minor in computer science and is an undergraduate teaching fellow for engineering dynamics in the Keystone Program.

**Aidan Stark** is a senior mechanical engineering student with a 4.0 GPA, and pursuing a minor in robotics. He received an associate of science degree in mechanical engineering from Montgomery College, whereupon he transferred to the University of Maryland. For his capstone project, Aidan designed a temperature sensing garment to aid paraplegics in monitoring their extremities while skiing. He is currently completing the inductee requirements to become a member of Pi Tau Sigma, the national honorary mechanical engineering society.

**Lillian Williams** is a senior mechanical engineering student with a 3.88 GPA. She earned an associate of science degree in mechanical engineering from Montgomery College with a 4.0 GPA. Currently, she interns with the Thermodynamics and Kinetics Group at the National Institute of Standards and Technology. During the winter of 2023, she conducted research on oyster farming cages in the Automated Design and Assembly Laboratory at the University of Maryland. She is an officer for the mechanical engineering honors society, Pi Tau Sigma. Upon graduation, she will work for Northrop Grumman.



## ENGINEERING CAREER SERVICES

### 2023 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 **Olivia Becker, Natalia Beltran, Ruth Efrem, and Madison Radford***

---

### ABOUT THE AWARDEES

**Olivia Becker** is a chemical engineer who interned at ExxonMobil in Baton Rouge, LA. Olivia made an impact within their business by challenging unit performance and identifying improvements to make the units more reliable and profitable. Her natural curiosity and strong interpersonal skills made her very successful during her internship. The biggest thing that set Olivia apart relative to other interns was her personal drive to dig into problems proactively, ensuring she understands content at a deep level to guarantee she is providing meaningful solutions to the root cause. She was always exploring new issues to solve without being prompted and she took her performance to a new level above her peers.

---

**Natalia Beltran** is a civil engineering student who interned for Whiting-Turner in Rockville, MD. Natalia is very quick to pick up processes, thinks critically, and is self-motivated to finish tasks. Within the few months she was working, Natalia was able to identify or be told about an issue, know where to look for information, and know the players and processes to resolve and document the resolution. Her employer was amazed at her ability to be given tasks and run them independently to completion in just weeks in comparison to other interns needing multiple months and significant oversight. Natalia's attention to detail allowed WT to be proactive and save weeks in coordination.

---

**Ruth Efrem** is a bioengineering student who interned at Element Materials Technology in Columbia, MD. Ruth went above and beyond in her role and demonstrated that she was a quick learner, professional, and willing to help with whatever was needed. She learned one of the newer and more complex RF technologies and used her engineering judgment and skills to debug issues and get the job completed; many times, without needing to go to the client for help. It takes some of our employees years to master what Ruth did in just a few weeks. Ruth offered to work extra hours and even came in on weekends to help meet deadlines. Because of her extra work, we were able to impress our clients and will hopefully win more business from them in the future.

---

**Madison Radford** is a computer engineering student who worked at the National Institutes of Standards & Technology (NIST) in Gaithersburg, MD. Madison's employer was very impressed with her work and described her as someone that is very deserving of this award. She has the unique quality of being able to listen and absorb the goal of a given activity so that she doesn't get lost in the details of its implementation. She is professional, independent, and above all, she is curious! Madison enjoys new challenges and is willing to pivot to different activities as the situation demands. She went above and beyond with her projects and they are still using the app she built them today.

---



## WOMEN IN ENGINEERING

### 2023 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 **Lucy Hughes and Isabella Penafiel***

---

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 **Jessica Boetticher***

---

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 **Marisol Hernandez***

---

## ABOUT THE AWARDEES

**Jessica Boetticher** is a senior bioengineering student minoring in technology entrepreneurship. She is in the Honors College and is a part of the Tau Beta Pi Engineering Honor Society and the Alpha Eta Mu Beta Bioengineering Honor Society. Jessica is an undergraduate teaching fellow for Biomedical Electronics & Instrumentation in the Fischell Department of Bioengineering. She has worked as a tutor, peer mentor, and peer mentor coordinator for the Women in Engineering Program. She will work for the Army Research Lab this summer before starting her master's program in bioengineering this fall.

---

**Marisol Hernandez** is a junior civil engineering student with a concentration in structural and geotechnical engineering. She is heavily involved in the Women in Engineering Program, holding leadership positions as co-chair of the Student Advisory Board and as mentor coordinator for the Sheila Rohra WIE Connect Peer Mentoring Program. She is an active member of the Society of Hispanic Professional Engineers and American Society of Civil Engineers. She is in the STEM sorority Alpha Omega Epsilon and held the position of alumni relations chair. During summer 2023, Marisol will be an intern on Kimley Horn's structural team.

---

**Lucy Hughes** is a senior civil engineering major with a minor in construction project management. Lucy is a peer mentor coordinator for the Women in Engineering Program where she assists the WIE staff with event coordination, and recruitment and retention efforts. She is involved with Engineers Without Borders, having volunteered as a travel team member, public relations chair, and secretary. She is also a sister of Alpha Omega Epsilon, a professional and social sorority for women in STEM, and a member of Chi Epsilon, the national civil engineering honors society. Lucy is excited to be starting her career as a project engineer this summer.

---

**Isabella Penafiel** is a senior bioengineering student. She is a member of FLAME: Foundational Learning and Mentorship Experience and the Biomedical Engineering Society. She is involved in the Women in Engineering Program as a WIE intern and a peer mentor in the Sheila Rohra WIE Connect Peer Mentoring Program. She also served as a ClarkLEADER, where she supported and welcomed new Maryland engineers into the Clark School. In the local community, she serves as a mentor and tutor at Greenbelt Middle School. Following graduation, she will be working in the bioengineering industry.

---



## CENTER FOR MINORITIES IN SCIENCE AND ENGINEERING

### 2023 HONORS AND AWARDS

The **Center for Minorities in Science and Engineering Service Award** is 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 **Ameenat Afolabi***

---

The **Center for Minorities in Science and Engineering Outstanding Intern Award** is presented to an exceptional CMSE Intern who has demonstrated dedication, creativity, and excellence in supporting the mission of the Center and promoting diversity in the field of engineering.

*Awarded to **Stephanie Tsitsiwu***

---

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 **Joshua Ikegwu and Gustavo Lang, Jr.***

---

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

*Awarded to **David Okello***

---

### ABOUT THE AWARDEES

**Ameenat Afolabi** is a junior computer engineering student and is a member of the Design, Cultures and Creativity Honors Program. Ameenat is also affiliated with different organizations such as Code: Black, for which she serves as president. She is an aspiring software engineer with an interest in firmware/embedded systems. This summer, Ameenat will be interning at Dell Technologies as a Software Development IT intern.

---

**Joshua Ikegwu** is a junior mechanical engineering and computer science student with a 3.4 GPA. He was a chemistry mentor for the Louis Stokes Alliances for Minority Participation (LSAMP) Bridge Program and served as a coach for his high school Science Olympiad team. He was also part of the first cohort for the Amazon Next Scholars Program and is currently a member of the Black Engineers Society. Joshua performed undergraduate research as part of the LSAMP Undergraduate Research Program.

---

**Gustavo Lang, Jr.** is a junior aerospace engineering major and father to two boys. He has designed rear wings for the Terps Racing Electric Vehicle and is actively engaged with the Center for Minorities in Science and Engineering, all while maintaining a 4.0 GPA. Gustavo completed a co-op at Apple as a Mac Product Design Engineer, where he was selected Intern of the Year. He will intern this summer at Boeing as a liaison engineer on the NASA Space Launch System. His goal post-graduation is to work in the space sector.

---

**David Okello** is a senior civil engineering major on the structural/geotechnical track. He currently serves as president of the Black Engineers Society (BES). He is also a student representative for the Campus Recreation Advisory Board (CRAB). On campus, David works as a service desk member for McKeldin Library. He is also heavily involved with the Center for Minorities in Science and Education (CMSE). Following graduation, David has accepted an offer to work at Bechtel.

---

**Stephanie Tsitsiwu** is a junior mechanical engineering student with a project management minor. She works as a student intern for the Center for Minorities in Science and Engineering and played a major role in planning the 2022 Louis Stokes Alliances for Minority Participation (LSAMP) Annual Research Symposium and the 42nd Annual Student Recognition Celebration. As an intern, Stephanie also serves as a liaison between the Center and other engineering student organizations, coordinating and planning monthly events. She is also a Clark School Ambassador and an active member of the Black Engineers Society.

---



## MARYLAND TECHNOLOGY ENTERPRISE INSTITUTE AWARDS

### 2023 HONORS AND AWARDS

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

*Awarded to **Elijah Taeckens** and **Harry Zou***

---

### ABOUT THE AWARDEES

**Elijah Taeckens** is a junior electrical engineering student. He is an undergraduate researcher in Dr. Sahil Shah's lab and is working on developing accurate, low power neural decoding systems that will allow users to control prosthetics with their minds. His work last summer led to a publication at the 11th IEEE Conference on Neural Engineering. Elijah is also a member of Team HiveMind, a Gemstone Honors undergraduate research team using neuromorphic technology to study honeybee flight patterns. After graduation, he plans to pursue a Ph.D. in engineering and continue his work on neural decoding.

**Harry Zou** is a senior bioengineering student who has worked in Dr. Gregg Duncan's lab on a high-throughput screening system for inhaled gene therapies. Harry participated in College Park Scholars and was a member of the RISE Leadership Academy in the Clark School. He was also an undergraduate teaching assistant for Principles of Genetics. After graduation, he plans to continue his studies toward a Ph.D. in biomedical engineering.

---



## DEAN'S AWARDS

### 2023 HONORS AND AWARDS

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

*Awarded to **William Covington***

---

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 **Erika Maher***

---

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 **Ijeoma Asonye***

---

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

*Awarded to **Annushka Aliev***

---

The **A. James Clark School of Engineering Dean's Award** is presented to a senior for scholastic excellence and demonstrated outstanding service and leadership to the Clark School of Engineering.

*Awarded to **Allison Griffith***

---

### ABOUT THE AWARDEES

**Annushka Aliev** is a junior civil engineering student on the environmental and water resources track who has maintained a 4.0 GPA. She is a member of the University Honors Program, the QUEST Honors Program, and the Engineering Honors Program. In addition to her coursework, Annushka is involved in environmental justice and infrastructure resilience research on campus. She is also heavily involved in Engineers Without Borders, of which she is the current president, works as a teaching assistant for the Introduction to Design and Quality course in the QUEST Program, and teaches SAT preparatory math.

---

**Ijeoma Asonye** is a senior mechanical engineering and creative writing student. She is a member of QUEST Honors Program and Jimenez-Porters Writers' House. She has worked at the Center for Minorities in Science and Engineering as a project engineer and website editor. Ijeoma serves on the Women in Engineering Student Advisory Board and serves as president of Flower STEM, a club for blending creativity and STEM. She is a student entrepreneur, author, and filmmaker. Ijeoma is currently producing a short film based on "The Beautiful Math of Coral", integrating the ideas of home, poetry, science, and art.

---

**William Covington** is a junior aerospace engineering student with a 4.0 GPA. Currently, Will is interning at NASA Goddard Space Flight Center as a thermal engineer working on the Mars Sample Return mission. At UMD, Will is one of the founders of the engineering team SatFab (Satellite Component Fabrication). He is also a teaching fellow for ENES100 and performs volunteer engineering work for UMD's Space Systems Lab. This summer, Will will be interning at NASA's Jet Propulsion Laboratory in Pasadena, California as a Mission Planning and Sequencing Intern for the Psyche mission.

---

**Allison Griffith** is a senior mechanical engineering student who has served in several leadership positions on the Society of Women Engineers Executive Board. She is also a member of the College Park Scholars: Science, Technology, and Society Program, the Women In Engineering Student Advisory Board, and Alpha Omega Epsilon, and is an alum of the Flexus Program. She currently works as a peer assistant in Engineering Career Services, interns for the Women In Engineering Program, and works as a Clark School Ambassador. Following graduation, Allison will start her career as a mechanical engineer at L3Harris in Wilmington, Massachusetts.

---

**Erika Maher** is a senior aerospace engineering major from Baltimore, Maryland. Erika has served as the president of the Society of Women Engineers (SWE) over the last two years, and is a member of the Women in Engineering Student Advisory Board. She has mentored over twenty students through the Women In Engineering mentoring program, and is a proud alumna of Flexus, where she served on the programming board. She is an active member of Alpha Omega Epsilon sorority for women in STEM and is a Clark School Ambassador.

---



## PLANNING COMMITTEE

### 2023 HONORS AND AWARDS

**Congratulations to all the students being recognized for their contributions to the Clark School, the University of Maryland, and the campus community.**

The Honors and Awards Ceremony Planning Committee wants to thank the staff and faculty of the A. James Clark School of Engineering, Office of Communications, and Office of the Dean, as well as Dean Sam Graham and Associate Dean Ken Kiger, for their assistance and support. We also thank the family and friends of the awardees for joining us in recognizing these outstanding students.

### 2023 PLANNING COMMITTEE

**Mary Bell**, *Undergraduate Advising and Academic Support*

**Shannon Hayes Buenafior**, *Undergraduate Advising and Academic Support*

**Kathy Gardinier**, *Chemical and Biomolecular Engineering*

**Aileen Hentz**, *Aerospace Engineering*

**Rebeca Hosten**, *Undergraduate Advising and Academic Support*

**Amanda B. McClish**, *External Relations*

**Adaire Parker**, *Materials Science and Engineering*

**Veronica Perrigan**, *Engineering Career Services*

**Kerri Poppler James**, *Mechanical Engineering*

**Tabatha Cuadra Rodriguez**, *Women In Engineering*

**Michael Robinson**, *Clark Foundation Scholarship Programs*

**Jackelyn López Roshwalb**, *Keystone Program*

**Alan Santos**, *Civil and Environmental Engineering*

**Kathryn Weiland**, *Electrical and Computer Engineering*

**Erin Wessell**, *Undergraduate Recruitment and Outreach Programs*

**Hollin Van Burren**, *Electrical and Computer Engineering*

**Nicole P. Roop**, *Undergraduate Student Affairs (Chair)*

Front cover photo by John T. Consoli.





**A. JAMES CLARK**  
SCHOOL OF ENGINEERING

1126 GLENN L. MARTIN HALL  
4298 CAMPUS DRIVE  
UNIVERSITY OF MARYLAND  
COLLEGE PARK, MD 20742

