

TBP FELLOWS

28 members have been awarded for a year of graduate study in 2021-22.

Abraham O. Atte KS A '20
Hennis No. 2 | Aerospace eng'g

Casey M. Baker VA A '18
Record No. 29 | Biomedical eng'g

Kimberly R. Bennett CA AB '21
Fife No. 231 | Medical eng'g

Nan (Louise) Chen NY P '20
Record No. 31 | Materials Sci. & eng'g

Amanda O. Christensen WY A '21
Sigma Tau No. 47 | Biomedical Sciences

Joseph M. Cloud TX H '19
Tau Beta Pi No. 833 | Computer eng'g

Kara L. Combs OH M '21
King No. 60 | Industrial eng'g

Kelly M. Crumley MI Γ '20
Anderson No. 18 | Biomedical eng'g

Emily D. Fabiano NJ B '21
Record No. 32 | Biomedical eng'g

Anna C. Feldman NY B '21
Spencer No. 66 | Environmental Science

Megan C. Flynn MA B '21
Hanley No. 11 | Mechanical eng'g

Ian Ho RI A '21
Stark No. 42 | Bioengineering

Yin Fung Khong CA K '17
Tau Beta Pi No. 832 | Computer eng'g

Fikunwa O. Kolawole DC A '19
Anderson No. 17 | Mechanical eng'g

Xinming (Lily) Liu NY Δ '20
Nagel No. 24 | Operations Research

Ming Yang Lu MD A '19
Fife No. 233 | Electrical eng'g

Wilson (Will) H. McNeil WV A '21
Matthews No. 24 | Environmental eng'g

Veronica Montgomery MA B '16
Williams No. 42 | Biomedical eng'g

Elisa B. Nieves FL A '20
Record No. 30 | Biomedical eng'g

Ashle M. Page NC A '17
Tau Beta Pi No. 831 | Bioethics

Parker S. Ruth WA A '21
Tau Beta Pi No. 834 | Computer science

Ayushi K. Sangoi NJ Γ '20
GEICO No. 6 | Biomedical eng'g

Shikha Srinivas CA Γ '21
Forge No. 9 | Sustainable Design

Charles Van De Mark CO B '19
Swalin No. 5 | Novel Genetic Circuits

Ronald (RJ) Vogler KY A '21
Dodson No. 8 | Chemical eng'g

Joseph Wakim MA Θ '19
Zimmerman No. 10 | Chemical eng'g

Yiming (Jason) Zhang AL Γ '21
Fife No. 232 | Biological eng'g

Dell H. Zimmerman TN Z '21
Centennial No. 36 | Chemical eng'g

Abraham O. Atte

Hennis Fellow No. 2

Abraham is a Ph.D. student in aerospace engineering at Georgia Institute of Technology with a research focus on the aerodynamic performance of eVTOL UAM vehicles and experimental investigation of multirotor aerodynamic interactions. He also teaches an experimental fluids lab. Abraham was initiated into TBII at the University of Kansas, where he graduated with a B.S. degree in aerospace eng'g with distinction. He served as KS Alpha Chapter initiation chair from fall 2018 until graduation. He was also active in the National Society of Black Engineers, Phi Mu Alpha Sinfonia, Sigma Gamma Tau, and as a university ambassador. Abraham was involved in undergraduate research in experimental fluid mechanics and completed a summer internship with the National Space R&D Agency in Abuja, Nigeria. Outside of academics, he dedicates time to community outreach focused on showcasing the opportunities afforded by a STEM degree to underrepresented students. Upon completion of his Ph.D., he plans on remaining in academia as a professor.



The **Anderson Fellowships** are named for Mabel E. and Marshall Anderson, MI Γ '32, who was TBP Fellow No. 19 and left a bequest to the Society in 2005.

Given for the 36th time, the **Centennial Fellowship** honors the Society's most outstanding fellow and commemorates Tau Beta Pi's 100th anniversary.

The **Dodson Fellowship** is sponsored by the late Charles R. Dodson, MD B '30, who made a gift to the Association in 1998.

The three **James Fife Fellowships** are presented in memory of the father of the late member William Fife, CA A 1921.

The **Forge Fellowship** is named for Charles O. Forge, CA Γ '56, who left a bequest in 2010.

The 11th **Hanley Fellowship** is awarded in honor of Mary A. and Edward P. Hanley, IL B '42, TBP Fellow No. 84, who left a bequest to TBP in 1991.

The **Hennis Fellowship** is awarded for the 2nd time thanks to a generous gift from Lee A. Hennis, CA Δ '65, to continue mentoring young engineers.

The **Harold M. King Fellowship**, awarded for the 60th time, honors the 1954-58 president of TBP, Harold M. King, MA A 1910, and is given to that recipient whose participation in his/her technical society is judged worthy of special mention.

The **Matthews Fellowship** is awarded in honor of R.C. "Red" Matthews, IL A 1902, who served as Secretary and Secretary-Treasurer from 1905-47 and as Secretary-Treasurer Emeritus in 1947-78.

The **Nagel Fellowship** is given in honor of Robert H. Nagel, P.E., NY Δ '39, for his service as Editor and Secretary-Treasurer from 1942-82 and as Secretary-Treasurer Emeritus in 1982-97.

The **Record Fellowships** are awarded commemorating Leroy E. Record, KS A '29, whose generous bequest will provide earnings to support awards in perpetuity.



The Fellowship Board has announced the selection of 28 engineering students from 336 applicants for graduate fellowships. More than \$8,000,000 in stipends will have been given by the Society when this 88th group of fellows completes its graduate work. These awards bring the total to 1,736 fellowships since the program began in 1929. The Association is grateful to volunteer members for their role in the selection process; reviewers are listed at www.tbpi.org/?Fellows.

Casey M. Baker

Record Fellow No. 29

Casey graduated with highest distinction from the University of Virginia with a B.S. in biomedical engineering and a double major in psychology. At UVA, she served as the Virginia Alpha Chapter vice president and was a teaching assistant for classes in the applied math and BME departments. As an undergraduate, she conducted research on vascular wound healing, mental health stigma, and gut-brain interactions. After college, she worked in Dr.



Steven Flavell's systems neuroscience lab at MIT before returning to graduate school to work towards her Ph.D. in biomedical engineering at Duke University. She is an NSF Graduate Research Fellow and is a member of Dr. Yiyang Gong's lab where she uses novel imaging techniques to observe and manipulate neural circuits. Outside of lab, Casey has volunteered as a crisis hotline volunteer for the National Suicide Prevention Hotline, as a big buddy for Comfort Zone Camp, and as an event coordinator for Relay for Life. She hopes to pursue a career in academia with an emphasis on teaching.

Kimberly R. Bennett

Fife Fellow No. 231

Kimberly is graduating with honors from the University of California, Riverside, with a B.S. in bioengineering. She is a 2020 TBPI Scholar and served as CA Alpha Beta Chapter president her senior year. As an undergraduate, Kimberly has participated in numerous research positions, completed an NSF International Research Experience at Tsinghua Univ. in 2018, and is an NIH MARC U-STAR research trainee. She conducted research under Dr. Victor Rodgers and Dr. Byron Ford, investigating the use of a protein therapeutic as a neuroprotective treatment for ischemic stroke. Her involvement in research has resulted in several presentations, numerous awards, and a pending first-author journal publication. Kimberly is passionate about mentoring other first-generation college students and minorities in STEM. She will pursue a Ph.D. in medical engineering and medical physics at the Harvard-MIT Health Sciences and Technology Program. Fully funded as a UCEM Scholar, she plans to conduct translational research focused on targeted drug delivery for oncological applications.



Nan (Louise) Chen

Record Fellow No. 31

Nan (Louise) graduated summa cum laude from New York University with a B.S./M.S. in chemical engineering in May 2020. She served as NY Rho Chapter president (2017-18) and is now TBPI NYC Alumni Chapter secretary. Passionate about teaching and mentoring, she was a TA for senior design, tutored students on a variety of introductory science courses, and mentored high school & undergrad students in research at NYU. She was awarded the Thompson Bartlett Fellowship for her undergrad research. She developed a solution-processing technique to fabricate inorganic thermoelectric thin film devices for waste heat capture, which resulted in her first-author paper that was featured on Editor's Choice at *Nanoscale Advances*. She is pursuing a Ph.D. in materials science and engineering at Johns Hopkins Univ., where she researches on organic semiconductors and conducting polymers for OFET, thermoelectrics, and vapor sensing applications.



The **Sigma Tau Fellowship**, given for the 47th time, perpetuates the name of Sigma Tau, a national engineering honor society founded at the University of Nebraska in 1904 and merged with Tau Beta Pi in 1974. It also commemorates Sigma Tau's former national president and secretary-treasurer, Clarel B. Mapes.

The **Charles H. Spencer Fellowship** is given for the 66th time. Named for Tau Beta Pi's president from 1936-47, Charles H. Spencer, *IL B 1913*, it is awarded to that recipient whose contributions to his/her collegiate chapter are judged worthy of commendation.

The **Donald A. Stark Fellowship** is supported by a gift from a charitable trust named for the man who contributed much to progress in the fluid-power industry.

The **Swalin Fellowship** is named in honor of Helen M. and Richard A. Swalin, Ph.D., *MN A '52*. Dr. Swalin and his wife left a bequest in 2015 to support TBPI scholarships and fellowships.

The **Tau Beta Pi Fellowship** is supported by matching gifts from companies as part of the annual alumni giving.

The **Edward H. Williams Jr. Fellowship**, awarded for the 42nd time, honors the founder of Tau Beta Pi. It is given to a recipient who plans to earn a doctoral degree and become a professional engineering teacher, as was Dr. Williams, *PA A 1875*.

The **Zimmerman Fellowship** is named for Marlin U. Zimmerman Jr., *MD A '44*, who left a bequest in 2011.

The **GEICO Fellowship** is supported through a partnership with GEICO Insurance.

Amanda O. Christensen

Sigma Tau Fellow No. 47

Amanda is a 2021 graduate with majors in chemical engineering and physiology and an honors minor from the University of Wyoming. She worked for four years as a Wyoming Research Scholar in the Cherrington/Navratil physiology labs. As a researcher, she has worked closely with a physician-scientist investigating the mechanisms of rheumatoid arthritis (RA) and the gender-skew towards women within the disease. Through this work, Amanda has interacted directly with patients and made significant progress towards developing a mouse model for RA with respect to female reproductive hormones. These experiences inspired her to pursue a career as a physician-scientist. She has served as WY Alpha Chapter VP and coordinated an online eng'g awards banquet while serving as AICHe student president. Over the summer, she joined the Wyoming COVID-19 surge team and looks forward to a career combining medicine, eng'g, and community service.



Joseph M. Cloud

Tau Beta Pi Fellow No. 833

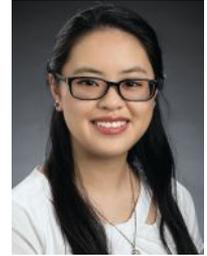
Joe graduated summa cum laude from the honors college at the University of Texas at Arlington with a B.S. in computer engineering and minor in mathematics. As a freshman, he worked with UTA's high energy physics group to build a supercomputer in support of the ATLAS experiment at CERN. For undergraduate studies, he researched machine learning-based control frameworks for teaching robots to perform tasks with humans. His work led to authorship and presentation of several papers at international conferences. He has completed internships with NASA Langley research center and Kennedy Space Center, working on a terrestrial rover to validate an instrument for future Mars missions, and researched machine learning techniques for excavating robots on the Moon. He is an NSF Graduate Research Fellow pursuing a Ph.D. at UTA, past NASA Texas Space Grant graduate fellow, and will work on robotic learning for space missions.



Kara L. Combs

King Fellow No. 60

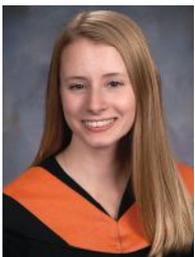
Kara graduated summa cum laude from Wright State University in 2021 with a B.S. in industrial and systems engineering and a minor in supply chain management. She served as corresponding secretary, vice president, and will transition to a graduate student advisor this year with the Ohio Mu Chapter. She was also involved with the Institute of Industrial and Systems Engineers (IISE), the Dean's Student Advisory Board, and the student ambassador & mentor program. She was awarded a TBI Scholarship (2019) and the 2021 IISE James Barany Award for student excellence. She is continuing at Wright State for her M.S. in industrial and human factors engineering and has started on her thesis concerning applications of analogical reasoning. After her master's degree, Kara intends to transition to a full-time industry position and potentially join a Ph.D. program in the future. Regardless of her career path, she hopes to continue mentoring others and assisting with her professional organizations.



Kelly M. Crumley

Anderson Fellow No. 18

Kelly graduated from the University of Michigan with a B.S.E in biomedical engineering and a minor in computer science in 2020 and will graduate with an M.S.E in biomedical engineering in 2021. She is pursuing a Ph.D. in biomedical engineering at the University of Michigan in Dr. Lonnie Shea's lab. Her work focuses on the generation of function pancreatic islets for treatment of type-1 diabetes, utilizing stem cells and controllable microenvironments. She also completed summer research projects at the Naval Surface Warfare Center, Johns Hopkins University, and research labs at the University of Michigan, with topics ranging from materials characterization, to study of the pathology of disease of the retina, to generation of patient specific models of neural anatomy to guide neuromodulation. She joined the MI G Chapter in 2018 and has served in multiple roles, including graduate student vice president. In the future, she plans to remain committed to the study of regenerative medicine and make a meaningful impact on our ability to treat chronic illnesses.



Emily D. Fabiano

Record Fellow No. 32

Emily graduated summa cum laude from Rutgers University with a B.S. in chemical engineering and a minor in HR management. She served as NJ Beta Chapter public relations chair, was the VP of Omega Chi Epsilon, and a member of Phi Theta Kappa. As a transfer student from the honors college at Raritan Valley Community College, Emily served as a mentor for transfer students to Rutgers School of Engineering. She was also heavily involved with Rotaract Club, where she took part in several humanitarian missions abroad to Nepal. Throughout her graduate studies and professional career, Emily hopes to generate increased awareness to further assist the communities in Nepal. Emily interned with Bristol Myers Squibb in product development, where she developed an internally novel tool to expedite the drug production process. She will be pursuing her Ph.D. at Vanderbilt University, in the biomedical engineering program, with a focus on cancer metastasis. Ultimately, Emily hopes to pursue a career in pharmaceuticals.



Anna C. Feldman

Spencer Fellow No. 66

Anna graduated with honors distinction from Syracuse University in 2021 with a B.S. in environmental engineering and a minor in environment and society. Anna has a passion for preserving water resources and protecting water quality through research, STEM outreach, and environmental stewardship. As an undergraduate, Anna was a regular volunteer for a local STEM education program and served as NY Beta Chapter president. She is a 2019 NOAA Hollings Scholar, 2020 Udall Scholar, and is recognized by Syracuse Univ. as the best all-around senior engineering student in her graduating class. Her undergraduate research focused on the occurrence and concentration of organic micropollutants in the waterways of Kampala, Uganda. She will continue water quality research this fall at Yale University as she pursues a master's of environmental science. She aims to work as a hydrologist for the USGS.



Megan C. Flynn

Hanley Fellow No. 11

Megan graduated from the Massachusetts Institute of Technology with a B.S. in mechanical engineering, focused in controls, instrumentation, and robotics, with a humanities concentration in Spanish. Megan served as

MA Beta Chapter tutoring committee chair and directed the MIT Leadership Training Institute, mentoring high school students and helping them create service projects in their communities. Megan also served

as a teaching assistant in the mechanical engineering and physics departments and taught high school science classes in Germany and Italy during two January terms. She was also a part of the Div. III field hockey team and gathered several personal, academic, and athletic honors; the team was NEWMAC champions in 2017 & 2019 and reached the NCAA Elite Eight in 2019. Megan will pursue an M.S. in mechanical eng'g at MIT with a planned focus in mechatronics and controls.



Fikunwa O. Kolawole

Anderson Fellow No. 17

Fikunwa graduated summa cum laude from Howard University in 2019 with a B.S. in mechanical engineering. At Howard, he served as president of the university's chapter of Engineers Without Borders. He also contributed to various initiatives to increase diversity and equity in STEM. Additionally, he worked in the Applied Mechanics and Materials Lab led by Dr. Gbadebo Owolabi, in the Biosensors lab, under the guidance of Dr. Hyung Bae, and was a research intern



at the department of applied mechanics with the FDA. He has received various awards such as the Lucien Rich Scholarship, Phi Beta Kappa Locke Award, and the Howard Founders Scholarship. Fikunwa is a mechanical engineering Ph.D. student in the Cardiac Magnetic Resonance lab at Stanford University led by Dr. Daniel Ennis. His research, which is at the interface of engineering and medicine, leverages expertise in mechanical eng'g, computational modeling, and cardiac magnetic resonance imaging to understand heart biomechanics in health and disease. Fikunwa's desire is to revamp the medical industry of his native country, Nigeria.

Ian Ho

Stark Fellow No. 42

Ian is majoring in mechanical engineering at Brown University. He is originally from Hong Kong. Since his freshman year, he has worked in the Harris lab investigating fluid solid interaction at the capillary scale. In his first publication at the lab, he investigated the boundary layer drag on centimeter-sized disks sliding on an air-water interface. In his second publication, he performed direct measurements of the capillary attraction between two objects floating on an air-water interface. For several years, he has worked as a monitor at Brown's design workshop makerspace and is also involved with the RI Alpha Chapter, where he serves as the cataloger. Ian will attend Stanford University as a Ph.D. student in bioengineering and is excited about investigating the intersection between fluid mechanics and biological systems. His future aspirations are to work in academia.



Xinming (Lily) Liu

Nagel Fellow No. 24

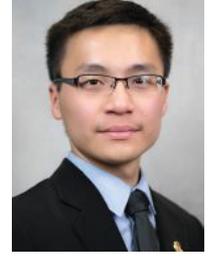
Xinming (Lily) graduated summa cum laude from Cornell University double majoring in computer science and operations research in May 2020. She worked as an undergraduate research assistant for various professors at Cornell on both human behaviors modeling and applications of optimization. She has also worked as a teaching assistant since her sophomore year. In her junior year, she was inducted into the NY Delta Chapter, served as the professional development chair for 2019-20, and received a TBII scholarship in 2019. Currently, Xinming is pursuing a Ph.D. degree in operations research at Massachusetts Institute of Technology. Her research focuses on applying data-driven optimizations and behavioral insights for social good. She is working on technology adoption through small-holder farmers' social networks. Xinming plans to pursue a career in academia.



Yin Fung Khong

Tau Beta Pi Fellow No. 832

Yin graduated summa cum laude with a B.S. and the Distinction and Outstanding Graduate Award with a master's degree in computer engineering from California State University, Northridge. He served as the CA Kappa Chapter president and council president to the student engineers' council (2017-19). Yin served on the TBII Convention Financial Affairs Committee (2017) and chaired the committee (2018). He was awarded the President's Volunteer Service Award (2016-19)—gold medal in recognition of community contributions. Yin completed his honors thesis, resulting in a first-authorship and co-authorship in two publications presenting a novel approach for efficient implementation of nucleus detection and classification, and a high-performance leukocytes algorithm using digital image processing and ML techniques. He will pursue a Ph.D. in computer eng'g with a focus in real-time image processing and embedded systems, continue signal processing research, and pursue a career in academia.



Ming Yang Lu

Fife Fellow No. 233

After graduating from Johns Hopkins University with a dual major in biomedical engineering and applied math & statistics in 2019, Ming worked as a computational researcher in Prof. Faisal Mahmood's lab at Harvard Medical School. He developed interpretable machine learning algorithms to improve the diagnosis of cancer from histology slides. In Fall 2021, Ming will start a Ph.D. in the electrical engineering & computer science dept. at MIT. He hopes to work with aspiring computational researchers, engineers, and clinicians across both academia and industry to develop quantitative methods for integrating different data modalities. Through this research, he wants to answer questions about causal mechanisms of biological diseases and investigate plausible interventions that might improve patient outcomes. After his Ph.D., Ming hopes to lead a research team and work on the translation of biotechnology to benefit human health.



Wilson (Will) H. McNeil

Matthews Fellow No. 24

Wilson (Will) is an honors graduate with a B.S. in civil engineering from West Virginia University. With a passion for conservation, Wilson's research focuses on the nexus of environmental engineering and public policy. He works with a multidisciplinary research group that advises WV lawmakers about scientific advances aimed at enhancing water quality. He also worked as an environmental eng'g intern in San Diego monitoring industrial water quality at facilities in Southern California and Tijuana, Mexico. Wilson is an avid Eagle Scout, published an illustrated children's book on service and scouting, and donates all proceeds to his local Boy Scout council. Because of his passion for service and public policy, he was a finalist for the Truman Scholarship. Wilson will begin graduate school in environmental eng'g at the University of California, Berkeley, in August. His goal is to work as a researcher or policy advocate for an environmental eng'g agency.



Ashle M. Page

Tau Beta Pi Fellow No. 831

Ashle graduated summa cum laude from North Carolina State University with a B.S. in chemical engineering and a B.S. in polymer and color chemistry. She also completed an M.A. in bioethics and science policy at Duke University and a J.D. at the University of North Carolina at Chapel Hill. As an undergraduate student, she was inducted into the NC Alpha Chapter. She completed four internships with NASA Langley Research Center, was part of the Engineering Entrepreneurs Program, and served as a mentor in STEM programs. Ashle also served in leadership positions with multiple journals, service organizations, and academic committees. She currently serves as secretary of the TBPI North Carolina Research Triangle Alumni Chapter.



Veronica Montgomery

Williams Fellow No. 42

Veronica graduated from MIT (2016) in biological engineering with minors in Spanish and materials science and eng'g. She served as MA Beta Chapter corresponding secretary and eligibles chair. She also served as an associate advisor for three years and held leadership positions as the faculty relations chair of BMES and co-vice president and co-founder of the MIT Microbiome Club. She conducted research in the Langer Lab for three years, working on improved methods of oral drug delivery which resulted in two co-authored publications. She participated in internships related to the link between health and the human microbiome at Openbiome in Boston and Clínica Alemana de Santiago in Chile. Veronica is working on a Ph.D. in biomedical eng'g under the direction of Prof. Mark Prausnitz at Georgia Tech, focused on using the skin microbiome for therapeutic purposes. She hopes to pursue a research career in the biotechnology industry.



Parker S. Ruth

Tau Beta Pi Fellow No. 834

Parker is completing his undergraduate degrees in computer engineering and bioengineering at the University of Washington in Seattle. As a member of the UbiComp Lab advised by Dr. Shwetak Patel, he explores applications of computing tools to improve the quality and accessibility of healthcare. His research includes prototyping mobile health systems to measure medical vital signs and risk factors, building wearable sensors to perform continuous physiological sensing, and designing computing tools to support population health and assay automation. Parker is fortunate to work closely with colleagues in computer science, electrical engineering, and bioengineering, in addition to several outstanding clinical collaborators from University of Washington Medicine. He will be starting Ph.D. studies in computer science at Stanford University. After obtaining his Ph.D., he hopes to become a tenure-track faculty member at an R1 research university.



Elisa B. Nieves

Record Fellow No. 30

Elisa graduated with a B.S. in biomedical engineering from the University of Florida in 2020 where she worked in Dr. Christine Schmidt's lab. Her research focus was the assessment and optimization of decellularized tissue scaffolds using heart, lung, and sciatic nerve tissues. At UF, Elisa presented research at several conferences, including the 2018-19 Annual Biomedical Research Conference for minority students and the 2019 Biomedical Engineering Society's annual meeting. Elisa is a first-year biomedical eng'g Ph.D. student in the joint Georgia Tech and Emory Univ. program. Supported by an NSF Graduate Research Fellowship, she is currently a member in Dr. Andrés García's lab. Her project looks at quantifying the forces cells exert on the extracellular matrix through the use of 3D traction force microscopy; understanding of these traction forces is critical to the study of mechanotransduction and the ability to modulate cellular activities and downstream tissue processes.



Ayushi K. Sangoi

GEICO Fellow No. 6

Ayushi graduated summa cum laude from New Jersey Institute of Technology with B.S. degrees in both biomedical and computer engineering in 2020. She received the distinction of the 2020 Newark College of Engineering Outstanding Engineer Award and Presidential Leadership Award. Ayushi serves as NJ Gamma Chapter president and an advisor to NJIT Girl Up, focused on empowering women in 3rd world countries. A three-time provost undergraduate research fellowship recipient, Ayushi has an established foundation in biophysics research and biomedical data analysis. After graduating, she accepted a competitive two-year provost fellowship and started her Ph.D. in biomedical eng'g with NJIT and Rutgers University. She serves as a TA while researching the neural mechanisms of vision therapy in the Vision and Neural Engineering Lab under Dr. Tara Alvarez. Ayushi has two co-authored publications, one first-author journal publication in review, aspires to mentor future female STEM leaders, and use clinical measures & predictive analytics to create personalized treatments.



Shikha Srinivas

Forge Fellow No. 9

Shikha will graduate from Stanford University this year with a B.S. in environmental systems engineering and a minor in human rights. She is motivated to encourage equitable infrastructure development in the face of climate change and urbanization trends. On campus, she is involved with sustainability, environmental justice, and STEM mentorship organizations. She has interned with the Air Force Civil Engineer Directorate, U.S. Green Buildings Council, and New Story, a housing non-profit. In the 2021-22 school year, she will complete a master's degree in sustainable design and construction at Stanford, with a focus on sustainable urban systems. Whether in the public or private sector, she hopes to contribute to affordable housing, disaster resilience, social computation, and urban innovation. After graduation, she plans to find opportunities designing sustainable cities and centering environmental justice in engineering practices.



Joseph Wakim

Zimmerman Fellow No. 10

Joe graduated at the top of his class from the University of Massachusetts Lowell (UML) in 2019 with bachelor's degrees in chemical engineering and mathematics. At UML, he researched microfluidic device designs for cell separation and passive mixing applications under the mentorship of Dr. Orbey and Dr. Barry. He held leadership positions in chemical engineering organizations and regularly interfaced with prospective students to promote the discipline. Today, Joe is a Ph.D. candidate in the chemical engineering department at Stanford University. Under Dr. Spakowitz, he applies polymer theory and simulation to model epigenetic factors dictating chromosomal organization. He is passionate about teaching, serving as a TA for an applied machine learning course. As an active member of Stanford's chemical engineering graduate student action committee, Joe helps coordinate first-year graduate student mentorship. After his Ph.D., he plans to apply his expertise in biophysical modeling towards a career in biotechnology R&D and would like to return to academia as a teaching professor to inspire future computational biologists.



Charles Van De Mark

Swalin Fellow No. 5

Charles graduated from the University of Colorado at Boulder with a B.S. degree in electrical engineering with a minor in biomedical engineering. His research included the development of organic electrochemical transistors for biosensing, RF devices, and methods to study the effects of EM fields on living organisms. He was also involved in many clubs and extracurricular activities, including the IEEE club, the engineering leadership program, and various tutoring and service organizations, as well as serving as CO Beta Chapter corporate liaison and event coordinator. Now at MIT, he is studying novel genetic circuits to advance the field of synthetic biology. After earning his Ph.D., Charles hopes to continue working in academia as a research professor. In the long term, his goal is to use synthetic biology principles to work towards novel treatments of neurodegenerative disease and life extension therapies.



Yiming (Jason) Zhang

Fife Fellow No. 232

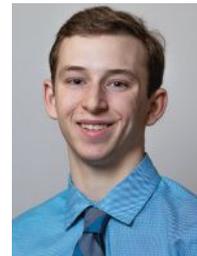
Yiming (Jason) graduated summa cum laude with a B.S. in biomedical engineering and a minor in mathematics from the University of Alabama at Birmingham. As an undergraduate, Jason explored diverse areas of research including clinical, industrial, and laboratory research. In graduate school, he is interested in combining engineering, molecular, and quantitative biology to push the technological frontier of immunoengineering. Outside of research, Jason served as the AL Gamma Chapter social chair. He is also heavily involved with Housing and Residence Life as a resident assistant for three years, where he earned 2018-19 Best Program of the Year and 2019-20 Best RA of the Year. With a passion for entrepreneurship, he was named a University Innovation Fellow by Stanford University Hasso Plattner Institute of Design. After graduation, Jason will pursue a Ph.D. in biological engineering at the Massachusetts Institute of Technology starting in Fall 2021.



Ronald (RJ) Vogler

Dodson Fellow No. 8

Ronald (RJ) graduated from the University of Kentucky in May 2021 with a B.S. in chemical engineering. Since 2018, he's conducted research on the synthesis and modification of polymeric membranes for applications such as heavy-metal adsorption, selective separations, and ion capture. He also completed NSF Research Experiences for Undergraduates programs at UK under Dr. Bhattacharyya and at the Univ. of Arkansas under Dr. Wickramasinghe. His research has led to three second-author publications, multiple presentations, and awards at conferences hosted by AIChE and the North American Membrane Society. Outside of research, he has collaborated with students to reestablish the UK Energy Club and create the interdisciplinary engineering outreach organization. This fall, RJ will begin pursuing a Ph.D. in chemical engineering at the University of Texas at Austin. He hopes to research sustainable technologies for chemical separations or catalysis.



Dell H. Zimmerman

Centennial Fellow No. 36

Dell earned a bachelor's degree, summa cum laude, in chemical engineering from the University of Tennessee at Chattanooga in May 2021. He has conducted research in applied nanotechnology and has published the results in the *Beilstein Journal of Nanotechnology* and the *Journal of Nanomaterials*. Notably, his research into nanoscale fertilizers represents a core contribution to the founding of S&J NanoChemicals, Inc. Dell participated in the National Science Foundation's iCompBio research experience for undergraduates in 2019. Dell was awarded a 2020 Goldwater Scholarship and a Tau Beta Pi Stabile Scholarship. He has also held multiple leadership positions within UTC's Chem-E-Car team and served as TN Zeta Chapter president during the 2020-21 school year. Dell recently completed work on an Oak Ridge National Laboratory center for nanophase material sciences user proposal. Dell will pursue his Ph.D. in chemical engineering at the University of Wisconsin-Madison.

