



# 2025 UNDERGRADUATE RESEARCH DAY CELEBRATING 20 YEARS

Thursday, April 10, 2025







# 2025 UNDERGRADUATE RESEARCH DAY

**Thursday, April 10, 2025**

Elizabeth D. Rockwell Pavilion  
M.D. Anderson Library  
The Honors College

**3:30 p.m. – 4 p.m. | Welcome and Remarks to Presenters**

Elizabeth D. Rockwell Pavilion

**Diane Z. Chase, Ph.D.**

Senior Vice Chancellor for Academic Affairs, University of Houston System  
Senior Vice President for Academic Affairs and Provost, University of Houston

**Claudia Neuhauser, Ph.D.**

Vice Chancellor for Research, University of Houston System  
Vice President for Research, University of Houston

**Stuart A. Long, Ph.D.**

Associate Dean of Undergraduate Research and the Honors College  
Moore's Professor, Department of Electrical and Computer Engineering  
University of Houston

**Rikki Bettinger, Ph.D.**

Director, Office of Undergraduate Research and Major Awards  
University of Houston

**4 p.m. – 6 p.m. | Viewing of Student Posters**

Elizabeth D. Rockwell Pavilion, M.D. Anderson Library, and The Honors College

**Access the Online Symposium:**

<https://symposium.foragerone.com/urday2025/registration>

The Office of Undergraduate Research and Major Awards thanks the Office of the Provost, the Division of Research, and the Honors College for their generous and continued support.



Office of Undergraduate  
Research and Major Awards  
The Honors College





The OURMA Team: Kalena Holeman, Rikki Bettinger, Livia Garza, Katie Welsh, Ben Rayder, and Stuart Long

# WELCOME FROM THE OURMA TEAM

## Today we celebrate the 20<sup>th</sup> annual Undergraduate Research Day!

We are excited to welcome you to Undergraduate Research Day. This event celebrates undergraduates from all colleges and disciplines across the University of Houston who are engaged in faculty-mentored research. A significant number of presenters are showcasing research carried out through OURMA programs, including the Summer Undergraduate Research Fellowship, Energy Scholars, Mellon Research Scholars, and Research for Aspiring Coogs in the Humanities. You'll find OURMA programs and participants highlighted in the pages that follow. Many other presenters are sharing research carried out in other programs, labs, and experiences across UH. University of Houston students are curious, driven, and engaged. Their modes of thinking – probing, astute, data-driven, and creative – are a source of optimism for us all.

Today also marks the celebration of 20 years of Undergraduate Research Day. On pages 6-13 in this book, you'll find a special feature on the history of URD and what it has meant for the University of Houston, students and faculty alike. This would not have been possible without the sustained commitment of the Office of the Provost, the Division of Research, and the Honors College, as well as hundreds of faculty from across UH. For today's event, URD presenters have collaborated with mentors from health and human performance to finance, music to electrical engineering, and history to biochemistry; we are fortunate at the University of Houston to have such dedicated faculty willing to share their time and expertise. You can find the full list of presenters and their mentors on the final pages of this book.

With these supporters, the University of Houston boasts a vibrant, robust undergraduate research community which makes a direct impact on student success, and this community continues to grow. In the last year, the Office of Undergraduate Research and Major Awards has supported over 358 faculty-mentored student research projects and awarded over \$760K in student scholarships. It comes as little surprise, then, that this year saw a 20% increase in poster submissions

for today's event. With 292 posters mentored by faculty from 14 UH colleges and schools, today marks the largest URD event yet.

These UH undergraduate researchers continue to be some of the most competitive candidates for major awards. In the last year our students have been named recipients of the Phi Beta Kappa Key into Public Service Scholarship, DAAD RISE program, Sumners Scholarship, and Critical Language Scholarship. With 14 Coogs named as Fulbright recipients for 2024-2025, the University of Houston was again named a Top Producing Fulbright Institution, the fourth time it has received this prestigious designation in the last six years. Additionally, psychology student Mielad Ziaee, a 2024 Truman Scholar, was the third ever UH student to receive the Marshall Scholarship, which will allow him to pursue master's degrees at the University of Edinburgh and the London School of Economics. Additionally, English major and OURMA student worker Kalena Holeman was named a Gates Cambridge Scholar, only the second UH student in history. Kalena will complete a Master of Philosophy in Classics at the University of Cambridge. We couldn't be more thrilled for Mielad and Kalena, and we know that the UK is receiving two of UH's most promising scholars.

The dedicated staff and faculty in OURMA were joined this year by Katie Welsh, a '24 alum who earned her B.A. in Strategic Communication with a concentration in public relations. In addition to coordinating the HERE and SURF programs, Katie supports OURMA's efforts to make undergraduate research opportunities widely known to students across the university. OURMA also benefits from the expertise and care of the talented faculty and staff in the Honors College, without whom OURMA's work would not be possible, or so enjoyable.

We are excited to celebrate the research of UH undergraduates, and they are eager to share their projects with you. Thank you for joining us for this special 20th annual celebration of undergraduate research at the University of Houston.

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Office of Undergraduate  
Research and Major Awards  
The Honors College

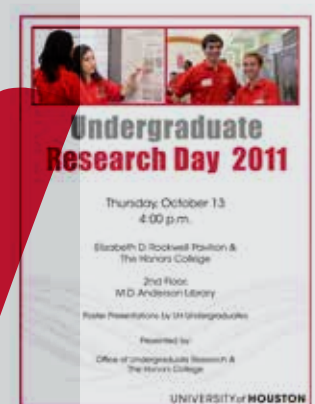
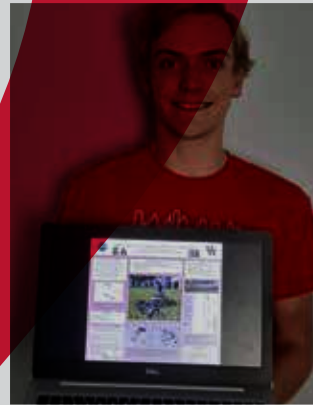
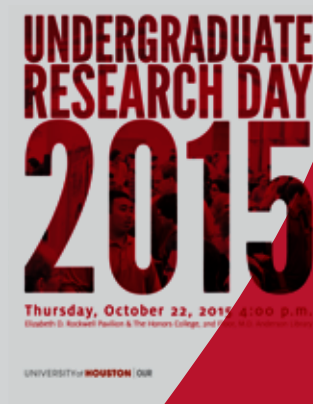
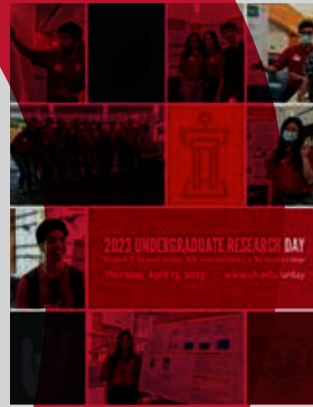
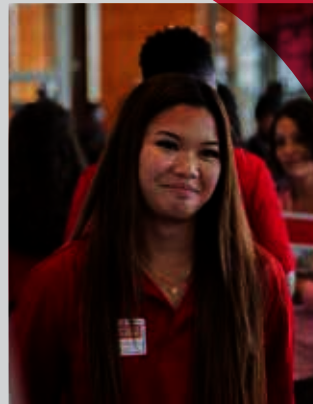
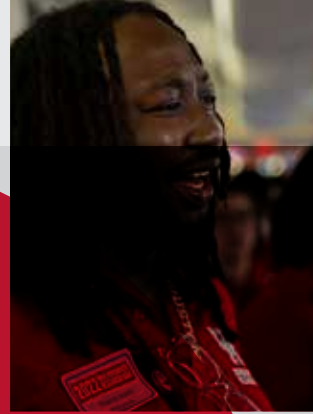
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**The Office of Undergraduate Research and Major Awards**  
University of Houston  
The Honors College  
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*Event Program designed by*  
**Julia Brown,**  
Manager, Office of Communication,  
The Honors College

Access the Online Symposium: <https://symposium.foragerone.com/urday2025/registration>









# CELEBRATING 20 YEARS OF UNDERGRADUATE RESEARCH DAY



# UNDERGRADUATE RESEARCH DAY

## CELEBRATING 20 YEARS

by Julia Brown

In 2009, at the fifth annual Undergraduate Research Day (URD), when Stuart Long was asked about the success of that year's event, he stated, "You haven't seen anything yet. We are just getting started." 2025 marks the 20th anniversary of URD, UH's leading multidisciplinary forum for presenting undergraduate research. Coordinated by the Office of Undergraduate Research and Major Awards (OURMA), this event unites students, faculty, staff and departments in celebration of a strong culture of undergraduate research.

### URD's Modest Beginnings

OURMA was originally established in 2005 as the Office of Undergraduate Research (OUR) following the appointment of Scott Perry as the UH Honors College's first Associate Dean of Undergraduate Research in 2004. At that time, the campus opportunities for mentored undergraduate research were relatively few. The Provost's Undergraduate Research Scholarship (PURS) had been established and running for a few years with a small faculty roster and just enough funding for 20 students each semester, and often with even fewer applicants.



Undergraduate Research Day, 2007

When Stuart Long was appointed Associate Dean of Undergraduate Research in 2006, he and then Honors College Program Manager Karen Weber worked at building OUR programming that would expand the number and breadth of funded, faculty-mentored research opportunities for undergraduates across the university. Over time, they built up the newly developed Summer Undergraduate Research Fellowship (SURF) program, in which students submit research proposals and secure a faculty mentor with whom they would work closely for ten weeks over the summer. The program would be open to students of all majors, across the university.

With the belief that summer researchers needed a platform to share their findings, OUR created a university-wide event that would cap off the SURF experience—participants would create and display



Undergraduate Research Day, 2023

posters that summarized their findings, with the entire UH community invited to share dialogue. In October 2005, 27 SURF participants presented their research at the first Undergraduate Research Day. Dr. Karen Weber recalls: "The students were terrific presenters and impressive. The faculty were proud of their students and what they had accomplished." The commitment and enthusiasm of both student researchers and

faculty mentors signaled that this successful event had staying power.

The first few URDs were modestly attended, but impactful. Dr. Samantha Rodriguez recalls presenting at the very first URD in 2005 as an undergraduate history major: "I was asked so many questions about my research. Most of the poster presentations were STEM-focused—the thought of presenting research via a poster was novel to me." Her project, titled "How Can Education be Liberation?: Scholar Activists and Radical Scholarship in Houston, Texas," examined oral testimonies in the study of the relationship between ethnic studies and community responsive research. She worked with history faculty member Dr. Luis Alvarez. "Dr. Alvarez's expert guidance not only allowed me to think deeper about my research subject but also made me seriously consider pursuing graduate studies. My inquiry and research method were a launching pad for my graduate research focus into activism and knowledge production." Dr. Rodriguez is now a history professor and co-coordinator of the Bridge (Puente) Program at Houston Community College.

Another presenter at an early URD event was Dr. Holley Love. In 2006, as a biomedical engineering student Holley Love conducted research with Dr. Stanley Kleis through the SURF program. Her project involved the creation of a new cell culture tool to be used in experiments in space; she presented her research at the second URD event. Love said that, at times, conducting research allowed her to work with her professor more as a colleague than as a student: "Instead of being graded and taught, I got to teach [my faculty mentor] about what my research showed," she said. This experience no doubt contributed to her academic trajectory: she went on to complete her doctoral work in mechanical engineering here at UH and is currently a UH instructional associate professor.



In 2006, Holley Love presented on the biomedical engineering research she conducted with then Associate Professor Stanley Kleis; Love is the 2024-2025 UH Faculty Senate President.

By 2009, the event had grown; nearly 100 students presented their research at the fifth annual URD. Faculty and staff were impressed with the event. "I expected some good things," said then UH professor of chemistry Simon Bott, "but I was literally taken aback by the quality of the entire session from the posters to how well it ran."

### The Importance of Faculty-Mentored Research

At the heart of URD are high quality faculty-mentored research projects and their proven benefit to undergraduate education. Research is a natural way to extend classroom learning; students can join in on existing research projects or create opportunities to dive further into their own interests. "My favorite [mentoring]



English professor and faculty research mentor Ann Christensen and mentee Victoria Blake.

*"Students occasionally get hold of a really exciting idea that cannot be contained in the course of a regular semester. They might write a paper, but there's more to do. There's more they want to do."*

**Ann Christensen**  
English Faculty

experiences happen when a student begins with a nagging question or an insight in a short assignment on the discussion board and finds a way to develop the idea in a longer assignment, and then just keeps on moving," says Dr. Ann Christensen, English professor. "Students occasionally get a hold of a really exciting idea that cannot be contained in the course of a regular semester. They might write a research paper, but they find there's more to do. There's more they want to do."

In OURMA programs, students work with faculty mentors for a close view on projects with field-changing impact. Some students conceive, design, and complete their own projects, while other students become integral parts of projects already in progress. These projects can provide a foundation for career-shaping graduate work. Whether or not researchers go on to graduate school, undergraduate research and URD participation give them valuable experience that can contribute to their goals in the long run.

URD provides a forum in which student work can be shared and celebrated by the entire UH community. As much work as the students do in the course of their research, preparing to present at Undergraduate Research Day harnesses yet another skillset. Simply



Undergraduate Research Day, 2024



creating a research poster provides valuable experience they wouldn't necessarily get in the classroom. "Students must carefully decide what and how much information to include in their posters and learn to explain complex ideas clearly without oversimplifying—an invaluable yet challenging skill," says Dr. Hanako Yoshida, a professor in the psychology department.



Undergraduate Research Day, 2022

Students work on coming up with an "elevator pitch" for their research that is accessible to multiple audiences, and at the URD event itself, they practice articulating their research questions, methodologies, and findings for distinct audiences—random visitors, as well as others in their field. "Researchers have to be able to defend, justify, explain and show the relevance of what they do. Presenting at Undergraduate Research Day hones those skills," says Dr. Christensen.

OURMA programs and undergraduate research thrive because of the many generous faculty mentors that supervise eager undergraduates every year. Faculty mentors provide advice, feedback, supervise honors theses, and can go on to support the students' professional trajectory as they apply for major awards and, themselves, pursue academic careers. Both Drs. Christensen and Yoshida have been longtime faculty mentors for and supporters of OURMA-sponsored programming—both have witnessed their mentees progress to procure prestigious awards and professorships at national R1 institutions after participating in mentored research.



Honors College Dean Heidi Appel and URD presenter, 2024

### Research Leads to Student Successes

Participating in faculty-mentored research programs and presenting at Undergraduate Research Day fit into a web of student professional and academic successes—many of these students go on to present their research at conferences, publish in top-tier journals, win major awards, and go on to all kinds of professional and academic successes. Dr. Yoshida personally recalls a few standouts from her substantial roster of successful mentees: "Maria Arredondo, a student who presented in the 2009 URD, went on to win an NSF GRFP in 2012 and is now an assistant professor of human development and family sciences at UT Austin. Kevin Darby participated in both SURF and PURS in 2009, and he is now an assistant

professor at Florida Atlantic University. Viridiana Benitez completed the senior honors thesis and is now assistant professor at Arizona State University."

URD's history is filled with endeavors that began as student projects and later expanded in scope and impact. History major Ronnie Turner's 2008 investigation of the personal files of Quinton Mease, a politically active director of the YMCA in Houston's Third Ward, was eventually featured on the television news show "Dan Rather Reports." Biology major Gabrielle Kostecki's 2022 research on the development of an anti-fentanyl vaccine helped her earn a Goldwater Scholarship (and special recognition from Texas Gov. Greg Abbott). Political science major David Paul Hilton's 2023 project examining Eastern European trade sanctions formed the basis of a successful Fulbright grant application to study in Uzbekistan.

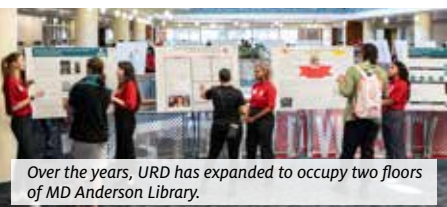
More recently, in 2024, engineering major Thomas "Tico" Hannan's project, with mentor Dr. Gangbing Song and collaborator Jian Chen, involving revolutionary battery monitoring technology won the inaugural university-level Genspiration Prize at the National Academy of Inventors (NAI) conference. The experience has inspired Hannan to pursue a Ph.D. in mechanical engineering. Dr. Song, a longtime faculty mentor and supporter of OURMA programs, is eager to see his mentees achieve so much so early in their careers. "A student's success is my success," he says.

### URD and OURMA Programs Grow

As the SURF program grew, the number of yearly URD presenters grew as well. (OUR would expand URD to include undergraduate researchers from across UH without the requirement of participation in one of its own programs. In 2020, OUR changed its name to incorporate Major Awards.) OURMA gradually added five additional program offerings to PURS and SURF, each providing opportunity for different sectors of UH's undergraduate population. The Energy Scholars program, for example, is a program geared toward students exploring projects in the energy sector. The Mellon Research Scholars program is designed specifically for graduate-school bound students doing research in the humanities.

In the 2023-2024 academic year, OURMA supported 358 mentored research projects (supervised by 206 unique faculty mentors). The office supported students with over \$760K in scholarships, fellowships, and research experiences. OURMA consistently pursues more and various types of funding, getting creative with industry partnerships that result in more research opportunities for undergraduates.

From the event's humble beginnings with only a few presenters and attendees, URD has expanded to include hundreds of projects on display, arranged by college—URD takes over two floors of MD Anderson Library, including The Rockwell Pavilion and The Honors College. Hundreds of students apply to present at URD every year. The event itself is enormous, lively, and, from poster printing to red polo shirts to marshalling dozens of volunteers, it takes months of planning. Any student participating in a faculty-mentored research project is eligible to submit to OURMA's call for proposals and secure a poster slot.



Over the years, URD has expanded to occupy two floors of MD Anderson Library.

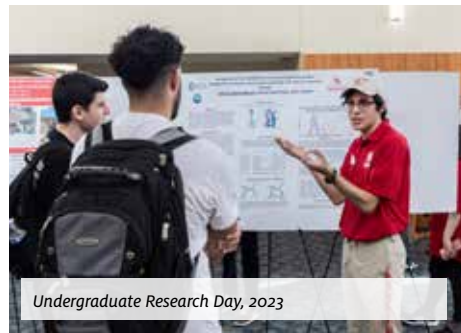


Engineering faculty mentor Gangbing Song works with mentee Tico Hannan in the Smart Materials and Structures Lab.

**"A student's success is my success."**

### Gangbing Song Engineering Faculty

In 2020, URD pivoted online due to the global pandemic, but since then, digital repositories of poster presentations have been developed. The event has acquired an online symposium component. By 2024, URD in-person attendance had increased from pre-pandemic levels.



Undergraduate Research Day, 2023

### URD Today

This year, OURMA expects URD to host nearly 1000 students, faculty, staff, and visitors. With 292 posters on display, it is the event's largest showing yet.

Adithi Nythruva, a sophomore psychology major who has participated in multiple OURMA programs—HERE, REACH, SURF, and Houston Scholars—is presenting at URD this year for the first time. "I am especially excited to gain a more comprehensive overview of humanities research conducted throughout campus," she says. Her project, mentored by Dr. Abigail Modaff, examines Jewish female identity post-World War II. "I am looking forward to learning more about other undergraduates' research projects and hard work over this past year."

Students learn a lot from other students at this event: they see themes they are interested in, or people doing research in fields they didn't know about. They are able to ask questions, learn new methods, and get inspired—the enthusiasm of hundreds of URD presenters is contagious. OURMA director Dr. Rikki Bettinger is a first-person witness to the impactful conversations, feedback, and peer support that students offer each other. "Student presenters sometimes come in nervous, particularly if this is their first time presenting their research," she says. "But Undergraduate Research Day gives them a great boost of confidence. They look around and understand they are part of a community."

Thanks to Toby Weber and Peter Simek for earlier reporting on Undergraduate Research Day.



# UNDERGRADUATE RESEARCH DAY THROUGH THE YEARS

**2005**

The first Undergraduate Research Day celebrated 27 poster presentations from participants in the SURF program.



**2009**

At the fifth annual URD, 94 presenters gathered to present their research, representing nine colleges and 29 different disciplines.

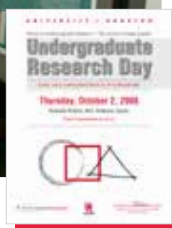


**2018**



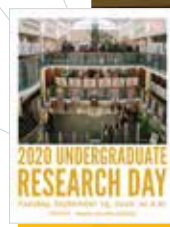
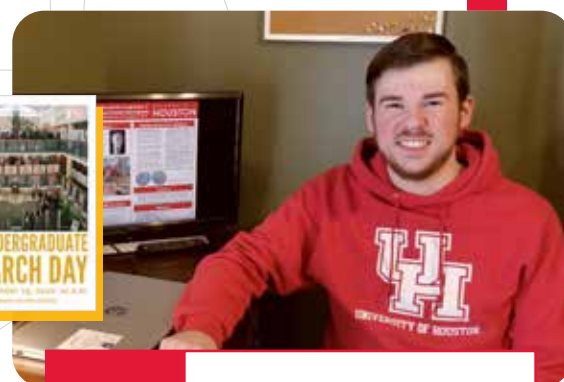
**2008**

President Renu Khator has been a committed supporter of undergraduate research.



**2020**

Despite the pandemic, URD continued through a virtual platform.





2025

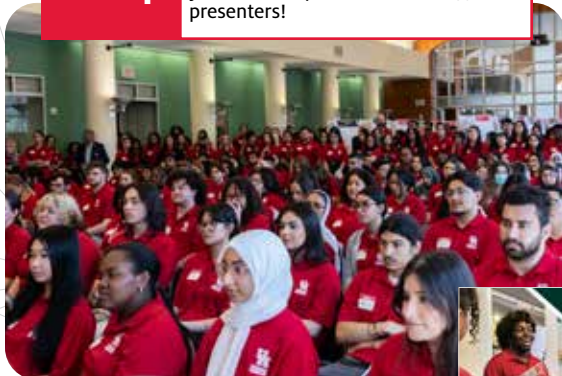
OURMA celebrates 20 years of Undergraduate Research Day!



URD participation grows and the event expands through the M.D. Anderson Library, where 241 posters were on display.

2024

URD sees its highest participation yet, with 241 posters and over 350 presenters!



## Undergraduate Research: Stuart Long Reflects



Stuart Long has played many roles since he joined the University of Houston in 1974. He is a Moores Professor in the Department of Electrical and Computer Engineering, and the winner of many professional accolades, including the University Farfel Award and the IEEE Distinguished Achievement Award. As Associate Dean of Undergraduate Research and the Honors College, he also provides leadership for the Office of Undergraduate Research and Major Awards (OURMA) and has been instrumental in making Undergraduate Research Day (URD) the successful annual showcase that this event has been over the past two decades.



Long speaks at URD 2010

Long began demonstrating a commitment to undergraduate research in his early days at UH, when he pioneered a program that recruited undergrads to assist with his own research projects, co-author papers, and travel to conferences. The program became known as "Electromagnetic Undergrads," or EMUGs. "I have had over 90 students work with me," Long says. "A good number of those students stayed to acquire graduate degrees at UH—those research experiences became a good departmental recruiting tool." Undergraduate research on campus was still relatively minimal when Long was appointed Associate Dean of Undergraduate Research in 2006. In that position he expanded his advocacy for funded, faculty-mentored research projects for students of all departments and majors, across the University.



Long confers an "Audience Favorite" poster award at URD 2016

Long promotes research to students by emphasizing the obvious and not-so-obvious benefits. Research allows students to see why they need the information they are being given in

their classes. Students are familiar with the knowledge dissemination that goes on in the classroom, but as undergraduate researchers, they experience the intensity of the knowledge acquisition aspect of the university, getting a look "behind the scenes." Research bonds students to their major and helps them establish relationships with faculty mentors that can last throughout their careers. In addition, undergraduate researchers have better graduation rates. Long recommends that students get as much experience outside the classroom as they can.

Long and Provost Diane Z. Chase at URD 2024



Over the years, the growth he has witnessed in the number and size of OURMA programs has been gradual—and is often dependent on the amount of funding available. One significant growth expansion advancement occurred in 2017, when OURMA acquired the first of three \$500,000 grants from

the Mellon Foundation, which boosted support specifically for undergraduate researchers in the humanities. "We have done a good job in getting more non-STEM students involved, but we still need a better way to advertise and encourage the non-STEM students to participate in research," Long says. "Undergraduate research can be even more impactful for non-STEM students, as they typically do not have opportunities for summer internships in their disciplines like engineering students do."

Long and OURMA are set on achieving some big goals, which include obtaining more outside funding for OURMA research programs. In the next five years, Long would like to incorporate oral presentation sessions into URD, in which students present their research live to an attending audience. He would also like to see an increase in the number of poster presentations. "Could URD feature 500 poster presentations by 2030?" Long muses. With the right funding and resources—certainly. "The talent, energy, and ambition of our undergraduates know no bounds—strengthening the culture of undergraduate research at this Carnegie-designated Tier One research university should be among our highest priorities."



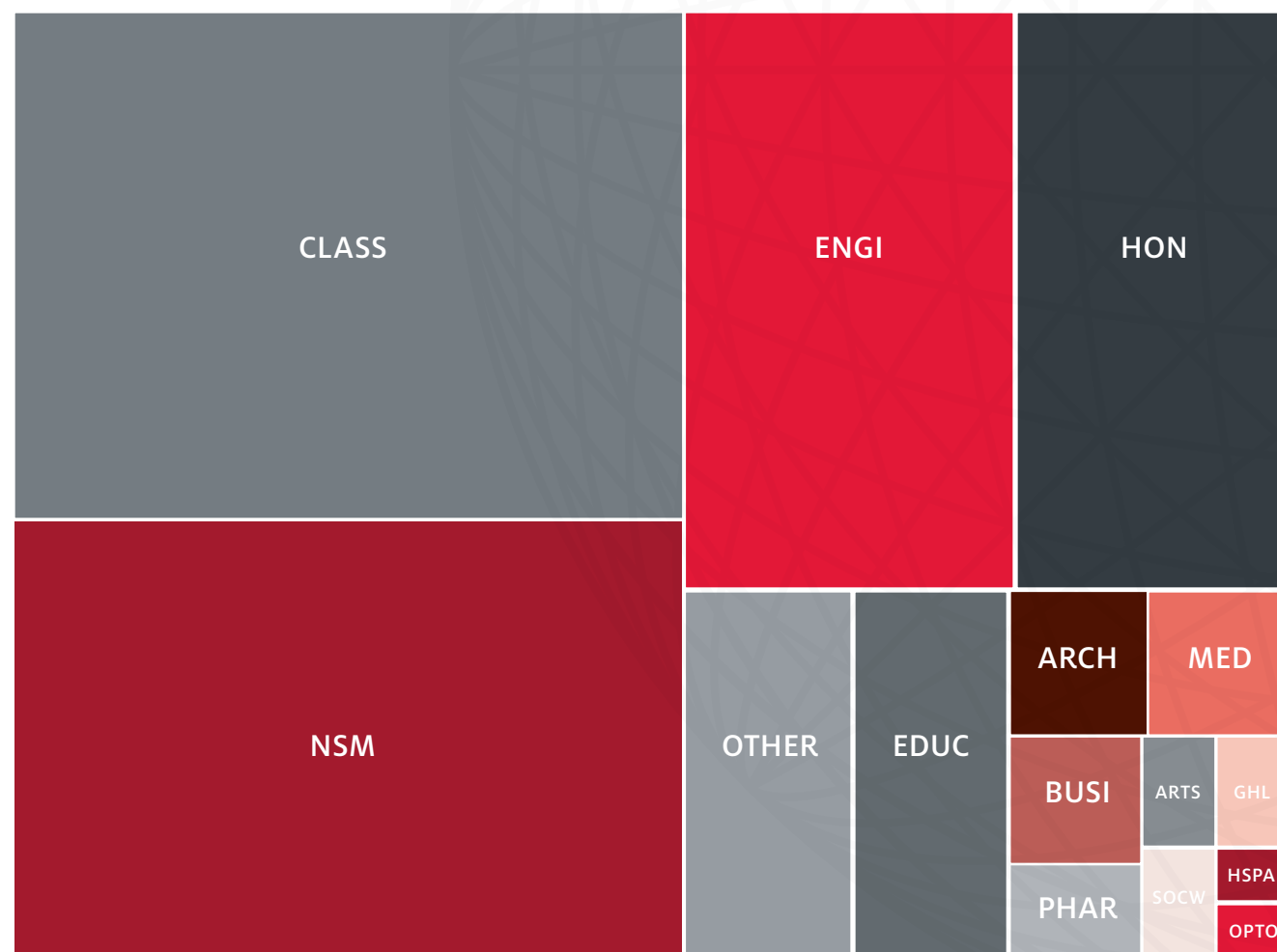
# UNDERGRADUATE RESEARCH DAY 2025

BY THE NUMBERS



## 2025 URD RESEARCH MENTORS: 14 UH COLLEGES AND SCHOOLS REPRESENTED

Number of Research Mentors, by College/School





# UNDERGRADUATE RESEARCH IS...


## ...Funded!


**\$500-\$6,000**   
**SCHOLARSHIP  
RANGE**


**\$12,905**   
**AWARDED IN  
TRAVEL FELLOWSHIPS**

 **\$760,000**  
**AWARDED IN  
STUDENT SCHOLARSHIPS  
LAST YEAR**

## ...For Everyone!


 **20+**  
**UH COLLEGES, SCHOOLS,  
AND CENTERS REPRESENTED**

 **30%**  
**OF OURMA PARTICIPANTS  
ARE PELL GRANT-ELIGIBLE**

 **1 in 5**  
**STUDENT RESEARCHERS  
IDENTIFY AS FIRST GENERATION**

## ...A Gateway to Fellowships!

**68**   
**FULBRIGHT RECIPIENTS  
SINCE 2018**

 **40**  
**DISTINCT FELLOWSHIPS  
UH STUDENTS HAVE EARNED**

## ...Supportive of the University!

UNDERGRADUATE RESEARCH SUPPORTS  
UH'S CARNEGIE-DESIGNATION AS A

**TIER ONE  
UNIVERSITY**



**STUDENTS CONTRIBUTE TO**



**CUTTING-EDGE  
RESEARCH**

**HAPPENING RIGHT HERE AT UH!**



# OFFICE OF UNDERGRADUATE RESEARCH AND MAJOR AWARDS



## OURMA PROGRAMS

**THE HOUSTON EARLY RESEARCH EXPERIENCE (HERE)** is a two-week research program in May for rising sophomore and junior undergraduates to learn the fundamentals of conducting research. \$1,000 scholarship. [uh.edu/here](http://uh.edu/here)

**THE RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES (REACH) PROGRAM** is a collaborative effort supported by the Cougar Initiative to Engage and OURMA, providing students in humanities disciplines a year-long introductory research experience by connecting them to existing projects at the University of Houston. \$1,500 scholarship. [uh.edu/reach](http://uh.edu/reach)

**THE SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP (SURF)** is a full-time, 10-week summer research program for students to conduct research with a UH faculty mentor. \$4,000 scholarship. [uh.edu/surf](http://uh.edu/surf)

**THE ENERGY SCHOLARS PROGRAM** allows undergraduate students to work on a year-long research project related to energy under the direction of a UH faculty mentor. Students from all disciplines are encouraged to apply. \$6,000 scholarship. [uh.edu/energy-scholars](http://uh.edu/energy-scholars)

**THE PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP (PURS)** is a part-time, semester-long research program for students to conduct research with a UH faculty mentor. \$1,000 scholarship. [uh.edu/purs](http://uh.edu/purs)

**THE MELLON RESEARCH SCHOLARS PROGRAM** is a year-long program that supports a cohort of students who aim to conduct research and attend graduate school in the humanities. Participants engage in developmental activities and conduct a summer research project. \$5,000 scholarship. [uh.edu/mellonscholars](http://uh.edu/mellonscholars)



**THE SENIOR HONORS THESIS** is a capstone program for an undergraduate's career in research. Open to all UH students, participants enroll in six hours of coursework, typically applied toward their degree requirements, during their senior year. [uh.edu/seniorhonorsthesis](http://uh.edu/seniorhonorsthesis).

Want to learn more? Email:  
[undergrad-research@uh.edu](mailto:undergrad-research@uh.edu)





## THE HONORS COLLEGE PHILOSOPHY

The Honors College at the University of Houston serves the intellectual needs of gifted undergraduates in more than 100 fields of study. We provide the careful guidance, flexibility, and personal instruction that nurture excellence. We offer the University's finest students ***the best of both worlds*** — the community and advantages of a small college together with the resources and rich diversity of a large research university. Our faculty and staff believe that a university education should offer more than the acquisition of skills for the workplace. The Honors College challenges students to develop the attributes of mind and character that enhance all facets of life.

## PRIVILEGES AND BENEFITS

- Small classes for all majors
- Accessible, award-winning faculty and staff
- Priority course registration
- Reserved facilities
- Student community, social events, and mentorship
- Unique minors/programs
- Study abroad and research opportunities
- Graduation with distinction



## HONORS CURRICULUM

Our curriculum is designed to coordinate with all majors and degree plans offered at the University of Houston. You will fulfill many of your University core requirements through Honors courses that take the place of regular required classes. One key sequence of courses, The Human Situation, is team-taught by Honors faculty and is designed to ensure that you are introduced to the great books of the Western tradition. The Honors College also offers six interdisciplinary minors. For many Honors students, the Senior Honors Thesis represents the exciting culmination of a bachelor's degree. A thesis provides an excellent opportunity for you to work under the direction of faculty in your chosen field of study, applying your skills and knowledge toward the completion of a scholarly or creative project.

Apply Now at [www.thehonorscollege.com/apply](http://www.thehonorscollege.com/apply)

Contact Information:  
The Honors College  
Office for Student Recruitment  
(713) 743-1766  
[honorsadmissions@uh.edu](mailto:honorsadmissions@uh.edu)





# FELLOWSHIPS AND MAJOR AWARDS





VALYSHYIY CON BERRUESON  
UCRAINA

MARTA Y LAURA II  
Tarta de la abuela  
Origen: España

Olena Koltsova  
Galletas de especias

Kayla Alexander  
galletas con chispas de chocolate  
origen: E.E.U.U.

URSO DE  
TRES



# 2024 UNDERGRADUATE SCHOLARS AND MAJOR AWARDS

The Office of Undergraduate Research and Major Awards congratulates the 2023-2024 Undergraduate Scholars and Major Award recipients, finalists, and alternates.

## GERALD D. HINES COLLEGE OF ARCHITECTURE AND DESIGN

Tessnim Mohammed, Mickey Leland Energy Fellowship (Recipient)

## C.T. BAUER COLLEGE OF BUSINESS

Jayden Gunsolley, Sumners Scholars (Recipient)

Emily Poff, Critical Language Scholarship Spark, Mandarin (Recipient)

## COLLEGE OF EDUCATION

Fatou Jallow, Donald M. Payne International Development Fellowship (Recipient)

Tammy Tran, Fulbright English Teaching Assistantship Grant, Vietnam (Recipient)

## CULLEN COLLEGE OF ENGINEERING

Oluwadurotimi Agbesanwa, BCM SMART Program (Recipient)

Farzana Likhi, Department of Energy Graduate Student Research Program (Recipient)

Leonard Jiang, Department of Energy Graduate Student Research Program (Recipient)

Kati Stubits-Gallagher, DAAD RISE Program (Recipient)

Toni Claire Tacorda, BCM SMART Program (Recipient)

## COLLEGE OF LIBERAL ARTS & SOCIAL SCIENCES

Nine Abad, Point Scholarship Opportunity Grant (Recipient)

Melanie Adhikary, Fulbright English Teaching Assistantship Grant, Taiwan (Recipient)

Adeena Ali, Fulbright English Teaching Assistantship Grant, Indonesia (Recipient)

Gerardo Angulo, Sumners Scholars (Recipient)

Saege Anzueto, Boren Awards, Korea (Alternate)

Zaina Boriek, MD Anderson PCCSM Post-Baccalaureate Program (Recipient)

Cameron Cochran, Fulbright English Teaching Assistantship Grant, Poland (Recipient)

Mallory Cotton, NSF GRFP (Recipient)

Isaac DeBerry, Fulbright English Teaching Assistantship Grant, Belgium (Recipient)

Meagan Donald, JET Program (Recipient)

Helin Erdal, Critical Language Scholarship, Azerbaijani (Recipient)

Veronica Garcia, Fulbright English Teaching Assistantship Grant, Germany (Recipient)

Lucas Giannetti, Fulbright English Teaching Assistantship Grant, Kosovo (Recipient)

Estella Gomez, Sumners Scholars (Recipient)

Alyssa Green, Phi Kappa Phi Fellowship (Recipient)

Zunayra Hemani – Fulbright English Teaching Assistantship Grant, Bulgaria (Recipient)

Kayla Huhn, Fulbright English Teaching Assistantship Grant, Spain (Recipient)

Joyce Lai, Critical Language Scholarship Spark, Mandarin (Alternate)

Naveera Majid, Fulbright Manchester Metropolitan University Award in Poetry, United Kingdom (Alternate)

Jessica Mansaram, Fulbright English Teaching Assistantship Grant, Thailand (Alternate)

Dhwani Mulani, BCM SMART Program (Recipient)

Daniel O'Connell, NSF GRFP (Honorable Mention)

Sofia Poznansky, Fulbright English Teaching Assistantship Grant, Kosovo (Recipient)

Justin Schnitzer, Sumners Scholars (Recipient)

Thalia Sevajan, Fulbright English Teaching Assistantship Grant, Taiwan (Recipient)

Thalia Sevajan, Critical Language Scholarship, Mandarin (Recipient)

Bismah Shaikh, Critical Language Scholarship Spark, Arabic (Alternate)

Mallory Walters, Fulbright English Teaching Assistantship Grant, Spain (Recipient)

Eshal Warsi, Islamic Scholarship Fund (Recipient)

Mielad Ziaee, Harry S. Truman Scholarship (Recipient)

Mielad Ziaee, PBK Key Into Public Service Scholarship (Recipient)

## HOBBY SCHOOL OF PUBLIC AFFAIRS

Gabriela Hamdieh, PPIA Junior Summer Institute (Recipient)

## COLLEGE OF NATURAL SCIENCES & MATHEMATICS

Yahya Arain, BCM SMART Program (Recipient)

Lucille Baker-Stahl, NSF GRFP (Honorable Mention)

Caleb Broodo, Department of Energy Graduate Student Research Program (Recipient)

Hy Cao, MD Anderson PCCSM Program (Recipient)

Reece Collins, MD Anderson PCCSM Program (Recipient)

Baycha Isik, Critical Language Scholarship, Turkish (Recipient)

Gabrielle Kostecki, Fulbright Study/Research Grant, Malawi (Alternate)

Gabrielle Kostecki, NSF GRFP (Honorable Mention)

Chirom Meiraba, DAAD RISE PRO Program (Recipient)

Javier Padron, Fulbright Study/Research Grant, Brazil (Recipient)

Senghong Sing, BCM SMART Program (Recipient)

Melody Tran, MD Anderson PCCSM Program (Recipient)

Leonard Wang, Fulbright/University of Strathclyde Award, UK (Recipient)

Jenna Zamil, MD Anderson PCCSM Program (Recipient)

# OUTSTANDING FELLOWSHIP MENTOR AWARD

The Office of Undergraduate Research and Major Awards hosted the Undergraduate Scholars and Major Awards Celebration on April 24, 2024. The University of Houston Outstanding Fellowship Mentor Award was featured in the celebration and awarded to **Max Rayneard, Ph.D.**, associate director of the Creative Work minor in the Honors College, and founding director of the FrameWorks Program.



## MAX RAYNEARD

Dr. Max Rayneard was recognized for his support and contributions to UH students conducting undergraduate research and applying to major awards. His dedication to helping students stems from his own experience as a Fulbright Scholarship recipient, which brought him from South Africa to the United States for the first time: “I know the life-changing opportunity such awards represent and how intimidating it can be to apply,” said Dr. Rayneard. “As a first-generation student, I would not have considered applying or known how to begin without the generous encouragement and guidance of my professors.”

From his experience mentoring students, Dr. Rayneard believes the benefits of applying go beyond potential grants or scholarships. He views the application process as an opportunity for students to self-reflect, to shape how they present themselves to the world, to integrate their personal narratives with their research interests, and to tailor their ideas to non-expert audiences. “My favorite advising moments are when the pieces click into place, when applicants find the right anecdote and perfect language so that their future aspirations become seamless and necessary expressions of their personal histories,” said Dr. Rayneard.

Along with advising students on award opportunities, Dr. Rayneard directs FrameWorks, a co-curricular research program directed at sophomores and juniors looking to participate in intensive humanities research usually reserved for seniors and graduate students. The first five years of the program saw nearly 100 students partnered with faculty mentors from the Honors College and the College of Liberal Arts and Social Sciences. FrameWorks has helped serve as a launch pad to other research opportunities like HERE, SURF, and the Mellon Program, along with elite graduate schools and competitive scholarships.

“Dr. Rayneard is all in on student success,” said Dr. Ben Rayder. “During peak Fulbright season, Max assists with interviews, writes recommendations, meets with applicants about their writing, and performs invaluable line editing. He is the consummate professional whose work has been transformational for UH students. We could not have achieved so much without him.”

**Congratulations to Dr. Rayneard on his award!**





# NATIONALLY COMPETITIVE SCHOLARSHIPS AND MAJOR AWARDS

Consider applying for one of these opportunities.

Application for these awards requires a strong academic, leadership, and service record. In some instances, you must be nominated to apply. For more information, visit the Office of Undergraduate Research and Major Awards or contact Dr. Ben Rayder ([btrayder@uh.edu](mailto:btrayder@uh.edu)).

## BARRY GOLDWATER SCHOLARSHIP

For sophomores and juniors who demonstrate academic excellence and intend to pursue research careers in mathematics, the natural sciences, or engineering. This competitive scholarship covers eligible expenses up to \$7,500 annually.

**Campus Deadline:** Dec 1, 2025

## HARRY S. TRUMAN SCHOLARSHIP

For college juniors committed to careers as change agents in government, the nonprofit or advocacy sectors, education, or elsewhere in public service. Each Truman Scholar receives up to \$30,000 for graduate study.

**Campus Deadline:** Dec 1, 2025

## MORRIS K. UDALL & STEWART L. UDALL SCHOLARSHIP

For sophomore and junior level students committed to careers related to the environment, tribal public policy or tribal health care. Awards of up to \$7,000 and access to the Udall Alumni Network.

**Campus Deadline:** Dec 1, 2025

## CRITICAL LANGUAGE SCHOLARSHIP

Language immersion program for undergraduates from all academic disciplines. Sponsored by the U.S. Department of State, this summer program allows students to study one of the 13 critical languages abroad, including Arabic, Chinese, Korean, and Russian.

**National Deadline:** Mid-Nov 2025

## NSF GRADUATE RESEARCH FELLOWSHIP

For graduating seniors pursuing a research-based master's or doctoral degree in the natural sciences, engineering, mathematics, or STEM education. The award includes a \$37,000 living stipend and \$16,000 cost-of-education allowance.

**National Deadline:** Mid-Oct 2025

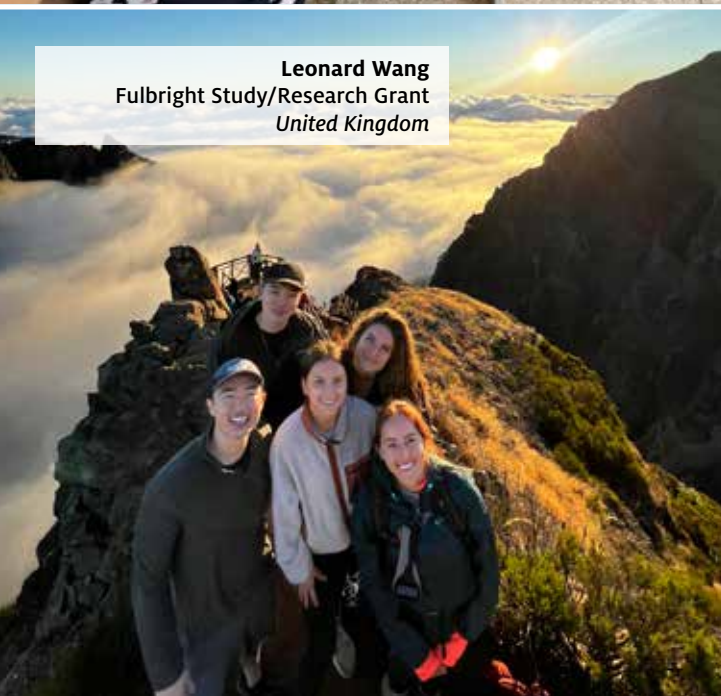
## FULBRIGHT U.S. STUDENT PROGRAM

For graduating seniors, current graduate students, and alumni. Students may apply to teach English, enroll in a graduate degree program, or conduct research for one year in more than 140 countries. Recipients are awarded a living stipend, travel accommodations, and basic health insurance.

**Campus Deadline:** Aug 29, 2025



**Morgan Thomas**  
Fulbright English Teaching Assistant  
*Ghana*



**Leonard Wang**  
Fulbright Study/Research Grant  
*United Kingdom*



**Kayla Huhn**  
Fulbright English Teaching Assistant  
*Spain*

# FULBRIGHT U.S. STUDENT PROGRAMS

The University of Houston is a top-producing Fulbright institution

## FULBRIGHT GRANTS FOR TEACHING ASSISTANTSHIPS OR STUDY/RESEARCH ABROAD

The Fulbright U.S. Student Program provides grants for individually designed study/research projects or for English teaching assistant programs. During their grants, Fulbrighters meet, work, live with, and learn from the host country to foster mutual understanding. Fulbright is one of the largest academic exchanges in the world, providing approximately 2,200 grants annually in more than 140 participating countries.

**2025 CAMPUS DEADLINE:**  
**August 29, 2025**

**FOR MORE INFORMATION, CONTACT:**  
**Dr. Ben Rayder**

Assistant Dean for Undergraduate Research,  
Major Awards, and Learning Abroad/Away

[www.us.fulbrightonline.org](http://www.us.fulbrightonline.org)   [btrayder@uh.edu](mailto:btrayder@uh.edu)









# UNDERGRADUATE RESEARCH PROGRAMS





# HOUSTON EARLY RESEARCH EXPERIENCE

The **Houston Early Research Experience (HERE)** is a two-week seminar series introducing rising sophomores and juniors to the fundamentals of conducting research. Under the guidance of UH faculty mentors, students explore various research methodologies and learn how to craft a research proposal. HERE participants receive a \$1,000 scholarship.

## HERE 2024 Theme: Space City Houston

### HERE 2024 Participants

Abigail Archila	Alex Heiliger	Wendy Novoa
Cooper Armstrong	Derek Herrera	Adithi Nythruva
Sarah Baig	Khaled Hlayel	Emma Pitrof
Ayesha Baloch	Hai-Chau Hoang	Rohaba Sajjad
Jagjit Singh Bhondi	Peyton Hodakievic	Alex Samano
Miguel Blanco	Eniya Kaleemullah	Chloe Saunders
Matthew Bohn	Betul Kaya	Justin Schnitzer
Diego Carrillo	Sydney Aleanna Magat	Maria Siddeeqe
Caleb Chiao	Alexander Mai	Diego Sierra
Alexandra Deras Diaz	Collin Mansur	Romina Suarez
Angela Doncsev	Alondra Martinez	Cynthia Tran
Kareem El-Giar	Ibraheim Maudood	Morgan Turner
Salma Gaballa	Isaac Mesina	Divya Valipe
Manali Catherine Ghurye	Rusheel Mittakanti	Elaine Vo
Sorraya Gonzales	Macy Mosier	Geetika Yadav
Benjamin Gwynn	Khanh Nguyen	
	Emily Nguyen	

### HERE 2024 Mentors

Gulin Aksu	Kelly Hopkins	Marina Trninic
Dan Burleson	Nick Jacobsen	Lesli Vollrath
Marc Hanke	Rita Sharp	







The **Houston Scholars** is a competitive program for high-achieving freshmen and sophomores to receive mentorship and scholarship funding to pursue research, internships, and other distinctive experiential learning opportunities.

Houston Scholars hear from speakers about topics to help them utilize opportunities at UH and develop their unique skill sets. By the end of the year, cohort members better understand opportunities at UH, learn how to be responsible students, and develop an intentional plan for their futures.

**Houston Scholars Participants**

Varun Balaji	Noel Chacko	Samma Gaballa	Duong Nguyen	Nathan Stiehl
Zara Baloch	Grace Chu	Kaden Helmka	Adithi Nythruva	Melody Tran
Miguel Blanco	Reece Collins	Funmilola Jesse	Milan Sam	Morgan Turner
Ariana Castaneda	Jacob Forray	Angela Nguyen	Justin Schnitzer	Divya Valipe





# RESEARCH FOR ASPIRING COOGS IN THE HUMANITIES

The **Research for Aspiring Coogs in the Humanities (REACH)** program provides a \$1,500 scholarship and a year-long introductory research experience for students in humanities disciplines by connecting a dozen students to existing research projects at the University of Houston. From projects in collaboration with UH Libraries Special Collections, to the digital humanities, to individual faculty research projects in humanities disciplines, the REACH program provides an entry-point to hands-on scholarly inquiry.

## 2024-2025 REACH Partners and Participants

### Recovering the US Hispanic Literary Heritage Program

#### Mentors

Lorena Gauthereau  
Mikaela Selley  
Gabriela Baeza Ventura  
Carolina Villarroel

#### Student Participants

Ana Frausto Leija  
Katerina Munoz  
Kassandra Zapata

### The Gulf Coast Sound: Music in East Texas Coastal Region

#### Mentors

Mary Manning

#### Student Participants

Amara Holeman

### Storymapping Houston Old Chinatown

#### Mentors

Melody Yunzi Li  
Guadalupe San Miguel

#### Student Participants

Charis Wu  
Arshiya Yasin

### Sharing Stories from 1977

#### Mentors

Sandra Davidson  
Nancy Young  
Leandra Zarnow

#### Student Participants

Srivarshini Achanta  
Klarissa Castillo  
Brian Holcomb  
Iris Lucio  
Sophie Nguyen  
Jacquelyn Nguyen

### The Year 1771

#### Mentors

David Mazella

#### Student Participants

Kadilo Buzugbe  
Tarashree Dorairaj

### Triumph and Tragedy in the Bayou City's Civil Rights Era

#### Mentors

Irene Guenther

#### Student Participants

Mia Harris  
Adithi Nythruva

### La Louisiane en Tejas: Gulf Coast Foodways in Southeast Texas

#### Mentors

Todd Romero

#### Student Participants

Tasneem Monib

"REACH has given me a unique opportunity to engage in research in ways I never imagined were possible in the humanities."

**Mia Harris**



# HONORS FACULTY RESEARCH ASSISTANTSHIP

The **Honors Faculty Research Assistantship** is designed to support Honors College faculty who are pursuing research. Since Honors College faculty are primarily teaching faculty, the research assistantship program provides important support for those who additionally seek to continue researching in their discipline. Students who participate in the Honors Faculty Research Assistantship program gain experience in research while supporting Honors College faculty members in their respective research work and are paid a monthly stipend. The research assistants are supported through the Lerner Family Fund.

## 2024-2025 Honors Faculty Research Assistants

### Tracy Adu

*Mentored by Arlene Macdonald*  
Honors, Medicine and Society

### Kailey DeLorenzo

*Mentored by Douglas Erwing*  
Honors, History

### Kailey Jirsa

*Mentored by Benjamin Rayder*  
Honors, Undergraduate Research  
and Major Awards

### Rabeeya Khan

*Mentored by John Lunstroth*  
Honors, Medicine and Society

### Lauren Nossner

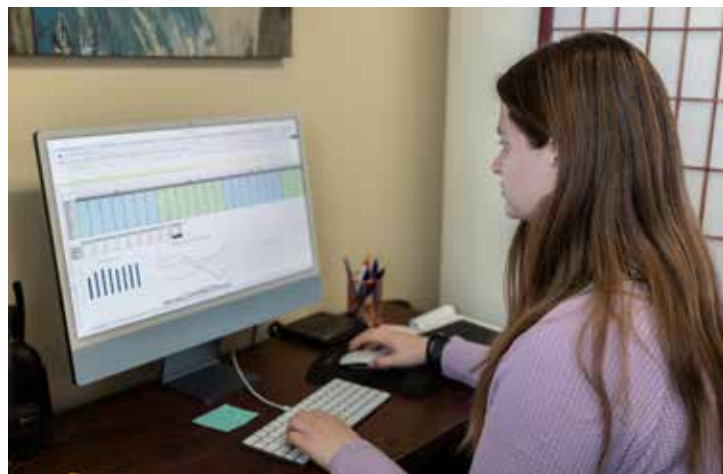
*Mentored by Marc Hanke*  
Honors, Biology

### Saron Regassa

*Mentored by Richard Garner*  
Honors, English

### Bridget Thompson

*Mentored by Michelle Belco*  
Honors, Political Science



"As an Honors Faculty Research Assistant, I enhanced my skills in data analysis, communication, and critical thinking, providing a strong foundation for my future professional career. My appreciation has deepened for how interdisciplinary collaboration is key to advancement."

**Kailey Jirsa**





# THE GEORGE “TREY” PHARIS FELLOWSHIP

**The George “Trey” Pharis Fellowship** engages undergraduate students in a 10-week summer research experience focused on developing data projects to understand how individual health outcomes are embedded in social and environmental contexts. With support from the Hewlett Packard Enterprise Data Science Institute (HPE DSI), Pharis Fellows work full-time on self-directed projects guided by mentors in the Honors College, HPE DSI, and our partner organizations, including the Environmental Protection Agency, Humana Insurance, the UH Education Research Center, and the Community Health Worker Initiative. The fellowship is named in memory of George “Trey” Pharis III, a beloved Honors College colleague at Data Analytics in Student Hands (DASH).

## 2024 Pharis Fellows

### Nikhila Achanta

Honors Biomedical Sciences  
*Examining Fenceline Communities and the Impact on Chronic Respiratory Disease Occurrence in Harris County*

### Aihanuwa Ale-Opinion

Biology  
*Vouchers and Vulnerabilities: How School Choice Affects Special Education in Texas*

### Hebah Amjad

Management Information Systems  
*Heat, Housing, and Health: Examining Heat Vulnerability in Houston's Communities*

### Joey Hernandez

Health  
*Beyond the Lockdown: COVID-19's Transformation of Houston's Community Hubs*

### Rex Kidd

Sociology  
*From Vacant to Vibrant: Suitability Testing and Estimating Impacts of Vacant Plots for Potential Urban Agriculture in Harris County*

### Rosemarie Faustina Le

Honors Biomedical Sciences  
*Beyond Just Books: Public Libraries as Lifelines in Texas' Rural, Suburban, and Urban Communities*

### Netra Nagoor

Management Information Systems  
*Gasping for Funds: Understanding the Financial Burden of Chronic Respiratory Conditions in Houston*

### David Odejimi

Computer Science  
*The Impact of High Imprisonment Numbers and Tough Sentences for Non-Violent Crimes on Racial Bias within the Criminal Justice System of Harris County*

### Rida Shaikh

Political Science  
*Power, Pollution, and Politics: Insights into the Electoral Behavior of Harris County Fenceline Communities*

### Yasmin Soltani

Biomedical Engineering  
*Language Acquisition and Academic Success for Refugee Students in Texas Public Education*

### Morgan Turner

Pre-Business  
*Towards Environmental Equity: Investigating Socioeconomic Disparities in Access to Recycling Services*

### Elaine Vo

Biology  
*Investigating the Relationship Between Texas School District Healthcare Expenditures and Academic Outcomes*



## PARTNERSHIP FOR CAREERS IN CANCER SCIENCE AND MEDICINE

The **Partnership for Careers in Cancer Science and Medicine (PCCSM)** program, hosted by the University of Texas MD Anderson Cancer Center, teaches and encourages passionate medical leaders through hands-on research training, weekly seminars, and workshops for 10 weeks in the summer. Nominated for exemplifying compassion and an aptitude for research in the medical field, selected students collaborate and work alongside worldwide cancer experts. MD Anderson is one of the world's premier cancer centers focused on cancer patient care, research, education, and prevention.

### 2024 PCCSM Researchers

#### MD Anderson PCCSM Program



**Hy Cao**



**Reece Collins**

#### MD Anderson PCCSM Post-Baccalaureate Program



**Zaina Boriek**



**Melody Tran**



**Jenna Zamil**

"PCCSM has introduced me to biochemical research and helped solidify my desire to pursue a career in medicine. I met a variety of people from across the country and truly learned what it meant to collaborate within a lab setting."

**Melody Tran**





**FrameWorks** is a year-long co-curricular program that provides curious, driven undergraduate students a supportive community of peers and faculty mentors as they conceive, research, write, present, and ultimately publish critical essays that draw on the interdisciplinary humanities. Each year, FrameWorks challenges students to broadly interpret an annual theme. Essays that meet editorial standards will be included in *FrameWorks: A Journal of Undergraduate Research in the Interdisciplinary Humanities*. Keep a look out for copies of our 2023/2024 issue, which explores “Generation” or read it on our webpage. In 2024-2025 the FrameWorks program challenged students to interpret the theme “Our Houston.” Find out more about FrameWorks: [thehonorscollege.com/frameworks](http://thehonorscollege.com/frameworks).



**Noah Cook**

Liberal Studies  
*Viewers' Experiences in the Rothko Chapel*



**Anisah Khan**

English  
*Healing in the Wake of the 1947 Great Indian Divide*



**Collin Mansur**

Political Science  
*George Strait's, Houston, and the "Country-City Divide"*



**Audrey Marston**

Political Science and Strategic Communication  
*Educational Inequities and the TEA Takeover of the HISD*



**Kelly Nguyen**

Political Science  
*The Myth of Talos/Houston-based Cancer Research*



**Sophie Nguyen**

English  
*Pan-Asian Consciousness and the Asian American Daughter*



**Adithi Nythruva**

Psychology  
*Refuge in The Ramayana and Houston Immigrant Experience*



**Romina Suarez**

Psychology  
*Community Impact of Houston's Mexican and Hispanic Murals*



**Emme Tomasello**

Anthropology  
*Institutional Responses to the Desecration of Newman's Broken Obelisk and Sikander's The Witness*



**Lindsey Vessels**

English  
*Jan De Hartog and the Transformation of the Jefferson Davis Charity Hospital*

**NOT PICTURED**

**Baila Walker**

English  
*Bookstores, Cafes, and Queer Communities in Montrose*



# PROVOST'S UNDERGRADUATE RESEARCH SCHOLARSHIP

The **Provost's Undergraduate Research Scholarship (PURS)** program provides talented students with the opportunity to participate in a semester-long research project under the guidance of a UH faculty mentor. Students from all disciplines are encouraged to apply. PURS recipients receive a \$1,000 scholarship.

## Fall 2024 PURS Recipients

### Tessnim Mohammed

*Mentored by Ross Wienert*  
Architecture

### David Torres Jr

*Mentored by Joseph Thompson*  
Management and Leadership

### Zoey Ballard

*Mentored by Aaron Becker*  
Electrical and Computer Engineering

### Isaiah Camarillo

*Mentored by Dimitrios Kalliontzis*  
Civil and Environmental Engineering

### Duong Nguyen

*Mentored by Nicolas Jacobsen*  
Honors, Energy and Sustainability

### Joshua Oladejo

*Mentored by Hasan Zerze*  
Chemical and Biomolecular Engineering

### Pascual Ortiz

*Mentored by Megan Robertson*  
Chemical and Biomolecular Engineering

### Rajvi Patel

*Mentored by Vedhus Hoskere*  
Civil and Environmental Engineering

### Josiah Rooker

*Mentored by Siavash Zamiran*  
Civil and Environmental Engineering

### Rohaba Sajjad

*Mentored by Momen Mostafa*  
Civil and Environmental Engineering

### Pranav Hariharan

*Mentored by Richard Meisel*  
Biology and Biochemistry

### Oluwatofunmi Jewesimi

*Mentored by Arlene Macdonald*  
Honors, Medicine and Society

### Maryem Adwer

*Mentored by Yuheng Lin*  
Engineering Technology

### Nicolas Patino

*Mentored by Ningqiao Li*  
Global Hospitality Leadership

### Shiza Aslam

*Mentored by Sreya Chatterjee*  
English

### Ryan Banda

*Mentored by Francesca Behr*  
Modern and Classical Languages

### Samma Elhammady

*Mentored by Bradley Smith*  
Psychological, Health, and Learning Sciences

### Ali Khan

*Mentored by Sujata Sirsat*  
Global Hospitality Leadership





## Fall 2024 PURS Recipients (continued)

### Krishna Lathish

Mentored by Haylee Harrell  
Psychology

### Helene Morford

Mentored by Carla Sharp  
Psychology

### Holly Nguyen

Mentored by Omolola Adepoju  
Humana Integrated Health System  
Sciences Institute

### Angela Nguyen

Mentored by Chandra Mohan  
Biology and Biochemistry; Biomedical  
Engineering

### Nirali Patel

Mentored by Tracey Ledoux  
Health and Human Performance

### Syed Rizvi

Mentored by Hanako Yoshida  
Psychology

### Annfaye Sternberg

Mentored by Abigail Modaff  
Honors, History

### Andrea Tribble

Mentored by Ameenah Shakir  
African American Studies

### Mariam Aly

Mentored by Julie Dunsmore  
Psychological, Health, and Learning  
Sciences

### Paul Daniel

Mentored by Wa Xian  
Biology and Biochemistry

### Saptarshi De

Mentored by Daniel Biediger  
Computer Science

### Yousef Elmakdah

Mentored by Mehmet Sen  
Biology and Biochemistry

### Judy Koussayer

Mentored by Molly Albecker  
Biology and Biochemistry

### Gabrielle Lansangan

Mentored by Melody Yunzi Li  
Modern and Classical Languages

### Dylan Magee

Mentored by Jokubus Ziburkus  
Biology and Biochemistry

### Ibraheim Maudood

Mentored by Chandra Mohan  
Biomedical Engineering

### Haneef Mohammed

Mentored by Jinsook Roh  
Biomedical Engineering

### Maryam Mukhtarov

Mentored by Richard Meisel  
Biology and Biochemistry

### Sayantana Pradhan

Mentored by Mehmet Sen  
Biology and Biochemistry

### Ritesh Ravi

Mentored by Andrew Kapral  
Honors, Engaged Data Science

### Christian Schmidt

Mentored by Liangzi Deng  
Physics; Texas Center for  
Superconductivity at UH

### Sanidh Shah

Mentored by Kirill Larin  
Biomedical Engineering

### Angelique Tagaban

Mentored by Virginia Snodgrass  
Rangel  
Educational Leadership and Policy  
Studies

### Cynthia Tran

Mentored by Tai-Yen Chen  
Chemistry

### Carter Ung

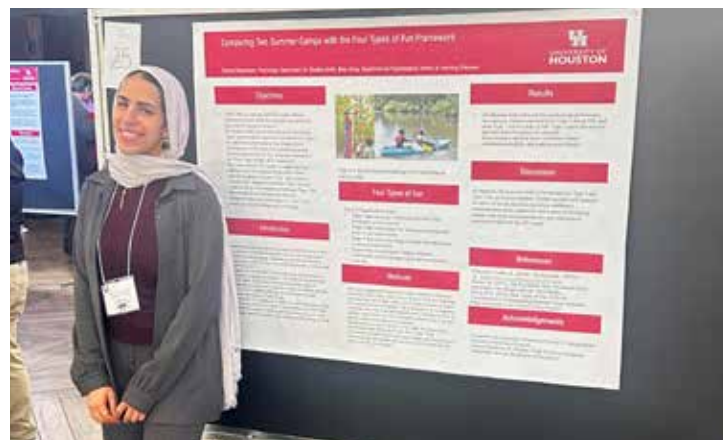
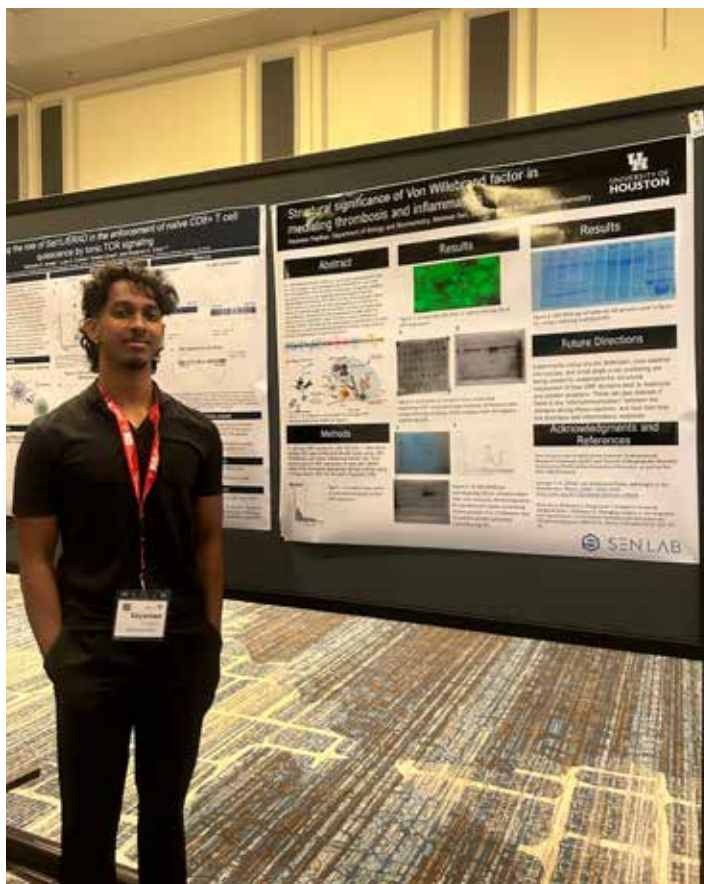
Mentored by Shishir Shah  
Computer Science

### Cole Woody

Mentored by Preethi Gunaratne  
Biology and Biochemistry

### Fartun Yussuf

Mentored by Chrysa Latrick  
Biology and Biochemistry



"The PURS program has been an amazing opportunity for me to develop my research project and strengthen my identity as a researcher. I have developed confidence not only in my project but in my ability to contribute to academic thought within the African American Studies discipline and research world."

**Andrea Tribble**

## Spring 2025 PURS Recipients

### Jazmin Abou-Mourad

*Mentored by William Ott*  
Mathematics

### Husni Abu-Awad

*Mentored by Ann Cheek*  
Biology and Biochemistry

### Asmaa Afridi

*Mentored by Tianfu Wu*  
Biomedical Engineering

### Zahra Ali

*Mentored by Hanako Yoshida*  
Psychology

### Ameen Ali

*Mentored by Tianfu Wu*  
Biomedical Engineering

### Salma Ansari

*Mentored by Tianfu Wu*  
Biomedical Engineering

### Dalia Awad

*Mentored by Richard Meisel*  
Biology and Biochemistry

### Zahra Bhattacharya

*Mentored by Wenshuang Wang*  
Mathematics

### Owen Christian Capule

*Mentored by Richard Meisel*  
Biology and Biochemistry

### Stanley Chan

*Mentored by Emily LaVoy*  
Health and Human Performance

### Camila Chavez Pinero

*Mentored by Ricardo Azevedo*  
Biology and Biochemistry

### Andrew Chen

*Mentored by Jiming Bao*  
Electrical and Computer Engineering

### Nour Chibani

*Mentored by Emily LaVoy*  
Health and Human Performance

### Anderson Chitsosa

*Mentored by Tameka Clemons*  
Biomedical Sciences

### Reece Collins

*Mentored by Meghana Trivedi*  
Pharmacy Practice and Translational Research

### Noah Cook

*Mentored by Dustin Gish*  
Honors, Political Science

### Laurel Cordova

*Mentored by Jennifer Clark*  
Political Science

### Juan Cruz

*Mentored by Aibing Li*  
Earth and Atmospheric Sciences

### Amman Dhanani

*Mentored by Amanda Austin*  
Political Science

### Shalaka Dhavalikar

*Mentored by Pranav Parikh*  
Health and Human Performance

### Khoa Doan

*Mentored by Megan Robertson*  
Chemical and Biomolecular Engineering

### Anton Erofeev

*Mentored by Ilya Timofeyev*  
Mathematics

### Madison Freeman

*Mentored by Amber Thiessen*  
Communication Sciences and Disorders

### Leah George

*Mentored by Rodica Damian*  
Psychology

### Keila Gonzalez

*Mentored by Rosenda Murillo*  
Psychological, Health, and Learning Sciences

### Valeria Gonzalez

*Mentored by William Truitt*  
Architecture

### Edgar Hernandez

*Mentored by Lorra Garey*  
Psychology

### Khaled Hlayel

*Mentored by Bhavin Sheth*  
Electrical and Computer Engineering

### Donna Iles

*Mentored by Thomas Teets*  
Chemistry

### Farbod Khalaj

*Mentored by Radbod Darabi*  
Pharmacological and Pharmaceutical Sciences

### Saeed Khan

*Mentored by Frank McKean*  
Biology and Biochemistry

### Fatima Khan

*Mentored by Hanako Yoshida*  
Psychology

### Emily Klang

*Mentored by Brandee Carlson*  
Earth and Atmospheric Sciences

### Cameron Klassen

*Mentored by Mili Kyropoulou*  
Architecture

### Rebekah Loriga-Oliveira

*Mentored by Cory Meals*  
Music

### Alexander Mai

*Mentored by Taryn Eubank*  
Pharmacy Practice and Translational Research

### Swarnil Mandal

*Mentored by Meghana Trivedi*  
Pharmacological and Pharmaceutical Sciences

### Collin Mansur

*Mentored by Michelle Belco*  
Honors, Political Science

### Bereket Mego

*Mentored by Jerrod Henderson*  
Chemical and Biomolecular Engineering

### Isaac Mesina

*Mentored by Marc Hanke*  
Honors, Biology

### Zunaira Mirza

*Mentored by Thomas Teets*  
Chemistry

### Rusheel Mittakanti

*Mentored by Greg Morrison*  
Physics

### Avery Narhi

*Mentored by Brandee Carlson*  
Earth and Atmospheric Sciences

### Dylan Nguyen

*Mentored by Marwa Ghazali*  
Comparative Cultural Studies

### Ryan Nguyen

*Mentored by Tarsis Ferreira*  
Vision Sciences

### Amarachukwu Okeke

*Mentored by Erin Kelleher*  
Biology and Biochemistry

### Raayed Rahman

*Mentored by Chandra Mohan*  
Biomedical Engineering

### Jacqueline Rudisill

*Mentored by Julia Babcock*  
Psychology

### Faiza Sachwani

*Mentored by Michael J. Zvolensky*  
Psychology

### Ayaan Saleem

*Mentored by Craig Johnston*  
Health and Human Performance

### Amna Siddiqui

*Mentored by Sreya Chatterjee*  
English

### Hasan Siddiqui

*Mentored by Mehmet Sen*  
Biology and Biochemistry

### Munema Termezy

*Mentored by Emese Felvegi*  
Decision and Information Sciences

### Brandon Than

*Mentored by Preethi Gunaratne*  
Biology and Biochemistry

### Nathan Touchet

*Mentored by David Mayerich*  
Electrical and Computer Engineering

### Trang Tran

*Mentored by Tai-Yen Chen*  
Chemistry

### Daniel Viray

*Mentored by William Ott*  
Mathematics

### Yousef Zamil

*Mentored by Eugénie Bassères*  
Pharmacy Practice and Translational Research



# MELLON SCHOLARS



**The Mellon Research Scholars Program**, funded by a grant from the Mellon Foundation, supports a cohort of students highly motivated to conduct research and attend graduate school in the humanities. Mellon Research Scholars participate in an intensive two-week graduate school preparation program in May and a full-time, faculty-mentored summer research experience. Each participant receives a total of \$5,000 for conducting their summer research project and participating in developmental academic and mentorship activities.



**Alora Baehr**

*Mentored by Rikki Bettinger  
Honors, Undergraduate  
Research and Major Awards*



**Victoria Blake**

*Mentored by Ann Christensen  
English*



**Alissa Boxleitner**

*Mentored by Zelma Oyarvide  
Tuthill  
Sociology*



**Nicholai Caterina**

*Mentored by Michael  
Snediker  
English*



**Joaquin Davila**

*Mentored by José Angel  
Hernández  
History*



**Tuyen Le**

*Mentored by Sarasij  
Majumder  
Modern and Classical  
Languages*



**Isha Merchant**

*Mentored by Mohan  
Ambikaipaker  
Modern and Classical  
Languages*



**Kelsey Middleton**

*Mentored by Haylee Harrell  
English*



**Katerina Munoz**

*Mentored by Jennifer Adams  
Sociology*



**Fejiro Oweh**

*Mentored by Marwa Ghazali  
and Gheni Platenburg  
Comparative Cultural Studies;  
Communication*





**Saron Regassa**

*Mentored by Haylee Harrell  
English*



**Dylan Rogers**

*Mentored by Amanda Baumle  
Sociology*



**Adolfo Salazar**

*Mentored by Lesli Vollrath  
Honors, English*



**Brittany Sandoval**

*Mentored by Haylee Harrell  
English*



**Eric Shin**

*Mentored by Caryn Tamber-Rosenau  
Modern and Classical Languages*



**Amna Siddiqui**

*Mentored by Bhavya Tiwari  
Modern and Classical Languages*



**CJ Thomas**

*Mentored by Tshepo Masango Chéry  
History*



**Andrea Tribble**

*Mentored by Ameenah Shakir  
African American Studies*



**Eshal Warsi**

*Mentored by Erin Routon  
Comparative Cultural Studies*

## NOT PICTURED

**Ria Bhatia**

*Mentored by Michael Snediker  
English*





# ENERGY SCHOLARS



**Cyrus Abbasi**

*Mentored by Mahdi Safa*  
Civil and Environmental  
Engineering



**Sama Abdelaziz**

*Mentored by Xin Fu*  
Electrical and Computer  
Engineering



**Kianna Agyekum**

*Mentored by Thomas Teets*  
Chemistry



**Amaan Ahmed**

*Mentored by Raul Susmel*  
Finance



**Tristan Alhadad**

*Mentored by Devin Shaffer*  
Civil and Environmental  
Engineering



**Hamza Fadel**

*Mentored by Lori Hathon*  
Petroleum Engineering



**Olivia Farmer**

*Mentored by Nicolas Jacobsen*  
Honors, Energy and  
Sustainability



**Michael Gonzalez**

*Mentored by Bo Zhao*  
Mechanical and Aerospace  
Engineering



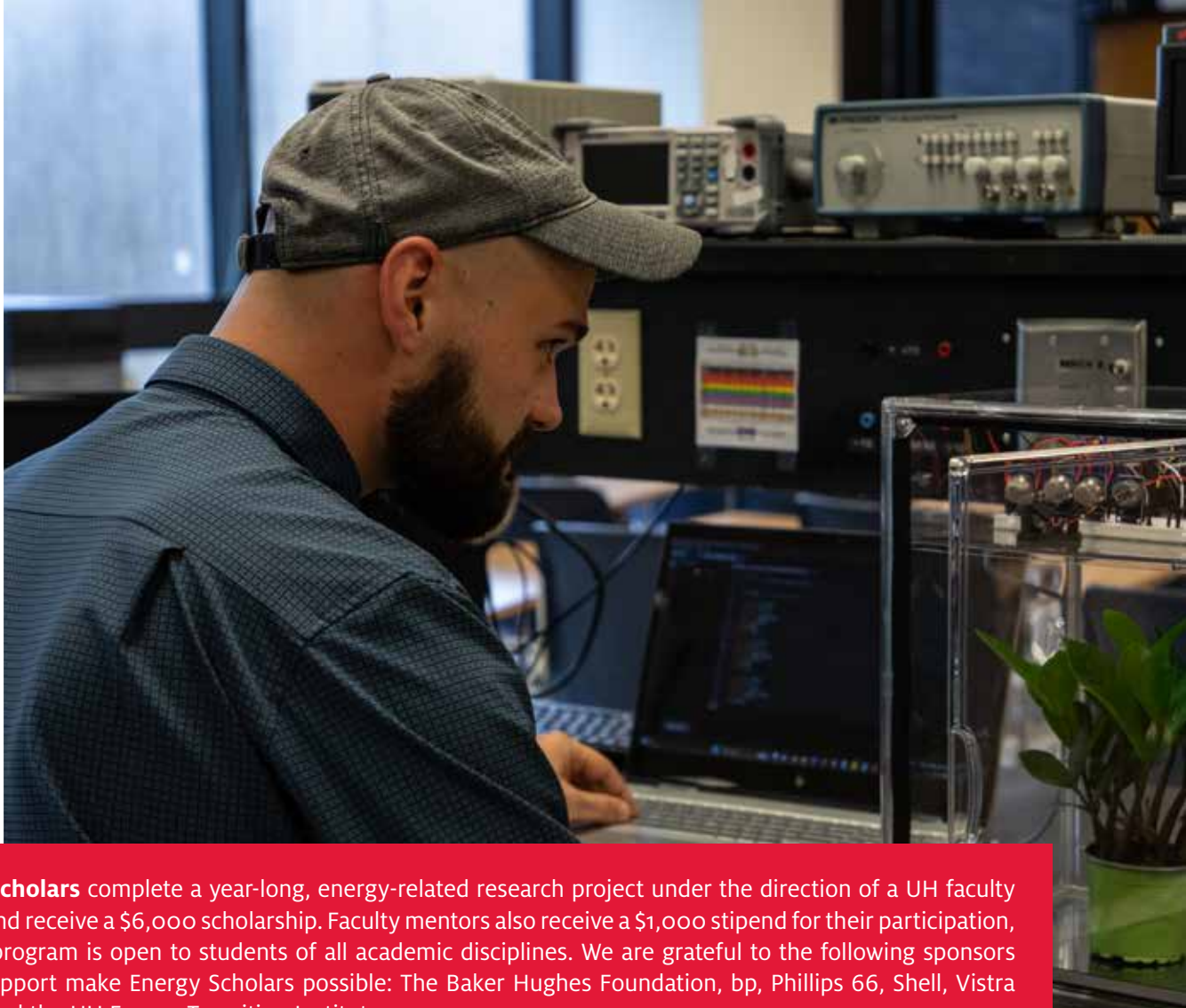
**Funmilola Jesse**

*Mentored by Alexandra  
Landon*  
Honors, Engineering



**Cameron Klassen**

*Mentored by Mili Kyropoulou*  
Architecture



**Energy Scholars** complete a year-long, energy-related research project under the direction of a UH faculty mentor and receive a \$6,000 scholarship. Faculty mentors also receive a \$1,000 stipend for their participation, and the program is open to students of all academic disciplines. We are grateful to the following sponsors whose support make Energy Scholars possible: The Baker Hughes Foundation, bp, Phillips 66, Shell, Vistra Energy, and the UH Energy Transition Institute.



**Maryam Naeem**

*Mentored by Wang Wenshuang*  
Mathematics



**Alexa Olivi**

*Mentored by Bernhard Rappenglueck*  
Earth and Atmospheric Sciences



**Patrick Redmond**

*Mentored by Siavash Zamiran*  
Civil and Environmental Engineering



**David Whaley**

*Mentored by Mahdi Safa*  
Civil and Environmental Engineering



**Emily Yeh**

*Mentored by Yoon Koh*  
Global Hospitality Leadership

## NOT PICTURED

### David Ferrer

*Mentored by Dimitrios Kalliontzis*  
Civil and Environmental Engineering

"Being in the Energy Scholars Program has been extremely rewarding in terms of academic, professional, and personal growth. I have learned so much about research and am excited to apply my newfound knowledge to my future research projects!"

**David Whaley**







# SUMMER UNDERGRADUATE RESEARCH FELLOWSHIP

The 2024 **Summer Undergraduate Research Fellowship (SURF)** launched in June with 86 SURF recipients, each receiving a \$4,000 scholarship and committing to a full-time, 10-week research experience. Each week, the students came together for a virtual lecture series to develop their foundation as researchers. OURMA thanks our 2024 presenters for their participation in this year's lecture series.



**Nine Abad**

*Mentored by Abigail Modaff*  
Honors, History



**Aleeza Adil**

*Mentored by Hanako Yoshida*  
Psychology



**Emmanuella Aigboduwa**

*Mentored by Harish Krishnamoorthy*  
Electrical and Computer Engineering



**Adebola Akinrinade**

*Mentored by Charles Layne*  
Health and Human Performance



**Angelina Albelo**

*Mentored by Mehmet Sen*  
Biology and Biochemistry



**Yasmine Almadi**

*Mentored by Min Kang*  
Industrial Design



**Suleyman Ancin**

*Mentored by Kelly Huang*  
Mechanical and Aerospace Engineering



**Salma Ansari**

*Mentored by Tianfu Wu*  
Biomedical Engineering



**Ali Ardda**

*Mentored by Xiaonan Shan*  
Electrical and Computer Engineering



**Falak Asad**

*Mentored by Tony Frankino*  
Biology and Biochemistry



**Zane Augulis**

*Mentored by Piruz Saboury*  
Economics



**Juhi Bhatt**

*Mentored by Hanako Yoshida*  
Psychology



**Afzila Bhojani**

*Mentored by Marc Hanke*  
Honors, Biology



**Kadilo Buzugbe**

*Mentored by Laura Bland*  
Honors, History



**Catherine Cabrera**

*Mentored by Tony Liao*  
Information Science Technology



**Jonathan Chan**

*Mentored by Kerri Crawford*  
Biology and Biochemistry



**Seaver Chester**

*Mentored by P. Shiv Halasyamani*  
Chemistry



**Anderson Chitsosa**

*Mentored by Tameka Clemons*  
Biomedical Sciences



**Simrat Clair**

*Mentored by Christoph Eick*  
Computer Science



**Bradley Cline**

*Mentored by Tian Chen*  
Mechanical and Aerospace Engineering





**Paul Daniel**

*Mentored by Wa Xian*  
Biology and Biochemistry



**Linh Dau**

*Mentored by Cumaraswamy*  
*Vipulanandan*  
Civil and Environmental  
Engineering



**Xavier Daugherty**

*Mentored by Hayan Charara*  
Honors, English



**Yasmeen Elfeki**

*Mentored by Seoung Hoon*  
*Park*  
Health and Human  
Performance



**Rea Rose Estrada**

*Mentored by Tony Frankino*  
Biology and Biochemistry



**Luiz Fernandez**

*Mentored by Tai-Yen Chen*  
Chemistry



**Luke Filyk**

*Mentored by Abigail Modaff*  
Honors, History



**Madison Freeman**

*Mentored by Amber Thiessen*  
Communication Sciences and  
Disorders



**Nathan Fuentes**

*Mentored by Emily LaVoy*  
Health and Human  
Performance



**Isabela Garcia**

*Mentored by Michael Murphy*  
Earth and Atmospheric  
Sciences



**Julia Gorman**

*Mentored by Erin Kelleher*  
Biology and Biochemistry



**Emily Graves**

*Mentored by Adam Stuckert*  
Biology and Biochemistry



**Arnav Gupta**

*Mentored by Raul Susmel*  
Finance



**Tico Hannan**

*Mentored by Gangbing Song*  
Mechanical and Aerospace  
Engineering



**Brianna Haynes**

*Mentored by Haylee Harrell*  
English



**Nathan Hernandez**

*Mentored by Yi-Chao Chen*  
Mechanical and Aerospace  
Engineering



**Dyma Hikmat**

*Mentored by William Ott*  
Mathematics



**Donna Iles**

*Mentored by Thomas Teets*  
Chemistry



**Suhaib Irfan**

*Mentored by Christoph Eick*  
Computer Science



**Lizbeth Jaimes**

*Mentored by Jaye Derrick*  
Psychology

**George Johnson**

*Mentored by Pablo Troncoso*  
Economics

**Fahim Kunhi Mohamed**

*Mentored by Michael Newman*  
Accountancy and Taxation

**Gabrielle Lansangan**

*Mentored by Melody Yunzi Li*  
Modern and Classical Languages

**Jacqueline Le**

*Mentored by Ling Zhu*  
Political Science

**Huynh Tram Anh Le**

*Mentored by Jeffrey Rimer*  
Chemical and Biomolecular Engineering

**Jacob Leipold**

*Mentored by Mehmet Sen*  
Biology and Biochemistry

**Ricardo Leyba**

*Mentored by Lars Grabow*  
Chemical and Biomolecular Engineering

**Natalie Linde**

*Mentored by Marzia Cescon*  
Mechanical and Aerospace Engineering

**Orion Lucero**

*Mentored by Zhengwei Li*  
Biomedical Engineering

**Collin Mansur**

*Mentored by Michelle Belco*  
Honors, Political Science

**Maryam Mohy**

*Mentored by Sandra Zalman*  
Art History

**Afra Nawar**

*Mentored by Jaspal Subhlok*  
Computer Science

**Adam Nelson-Archer**

*Mentored by Christoph Eick*  
Computer Science

**Katelyn Nguyen**

*Mentored by Monique Mills*  
Communication Sciences and Disorders

**Emily Nguyen**

*Mentored by Heather Caslin*  
Health and Human Performance

**Angela Nguyen**

*Mentored by Chandra Mohan*  
Biology and Biochemistry

**Adithi Nythruva**

*Mentored by Abigail Modaff*  
History, Honors

**Christopher Oosthuizen**

*Mentored by Vedhus Hoskere*  
Civil and Environmental Engineering

**Sonya Ortiz**

*Mentored by Kelly Huang*  
Mechanical and Aerospace Engineering

**Abigail Pomeroy**

*Mentored by Ashutosh Agrawal*  
Mechanical and Aerospace Engineering





**Sayantan Pradhan**

*Mentored by Mehmet Sen*  
Biology and Biochemistry



**Cameron Ptak**

*Mentored by Quentin Vicens*  
Biology and Biochemistry



**Raayed Rahman**

*Mentored by Chandra Mohan*  
Biomedical Engineering



**Toni Ramos**

*Mentored by Brandee Carlson*  
Earth and Atmospheric  
Sciences



**Celine Saidy**

*Mentored by Steven Pennings*  
Biology and Biochemistry



**Rohaba Sajjad**

*Mentored by Momen Mustafa*  
Civil and Environmental  
Engineering



**Santiago Sanchez  
Cabarcas**

*Mentored by Carla Sharp*  
Psychology



**Aashna Shah**

*Mentored by Carla Sharp*  
Psychology



**Maria Siddeeque**

*Mentored by Ben King*  
Health Systems and Population  
Health Sciences



**Diego Sierra**

*Mentored by Raul Susmel*  
Finance



**Annfaye Sternberg**

*Mentored by Abigail Modaff*  
Honors, History



**David Torres Jr**

*Mentored by Jaewook Kim*  
Global Hospitality Leadership



**Cynthia Tran**

*Mentored by Tai-Yen Chen*  
Chemistry



**Aanshi Trivedi**

*Mentored by Melissa Zastrow*  
Chemistry



**Guillermo Vasquez**

*Mentored by Yi-Chao Chen*  
Mechanical and Aerospace  
Engineering



**Daniel Viray**

*Mentored by Vaughn  
Climenhaga*  
Mathematics



**Robin Westveer**

*Mentored by William Ott*  
Mathematics



**Courtney White**

*Mentored by Amanda  
Alexander*  
Mathematics



**Andrew  
Wusterhausen**

*Mentored by Loi Do*  
Chemistry



**Alexandros  
Xenophontos**

*Mentored by Tasneem Bawa-  
Khalfe*  
Biology and Biochemistry



**Noah Yi**

*Mentored by Sunny Yang*  
English



**Yousef Zamil**

*Mentored by Eugénie Basseres*  
Pharmacy Practice and Translational Research

#### NOT PICTURED

**Brandon Burlison**

*Mentored by Jeff Feng*  
Industrial Design

**Ibraheim Maudood**

*Mentored by Chandra Mohan*  
Biomedical Engineering

**Anjalee Nair**

*Mentored by Andreas Mang*  
Mathematics

**Alexa Perez**

*Mentored by Daniel Engster*  
Public Affairs



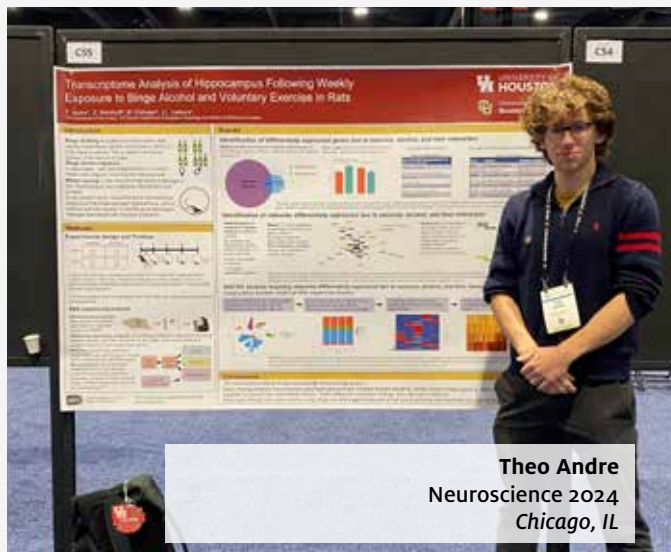


# UNDERGRADUATE RESEARCH TRAVEL FELLOWSHIP

The Undergraduate Research Travel Fellowship promotes the professional development of undergraduate researchers from the University of Houston by supporting students' travel to showcase their work at an academic meeting. Applicants can receive up to \$750 to cover travel expenses associated with attending and presenting their research or creative work at a regional, national, or international conference.



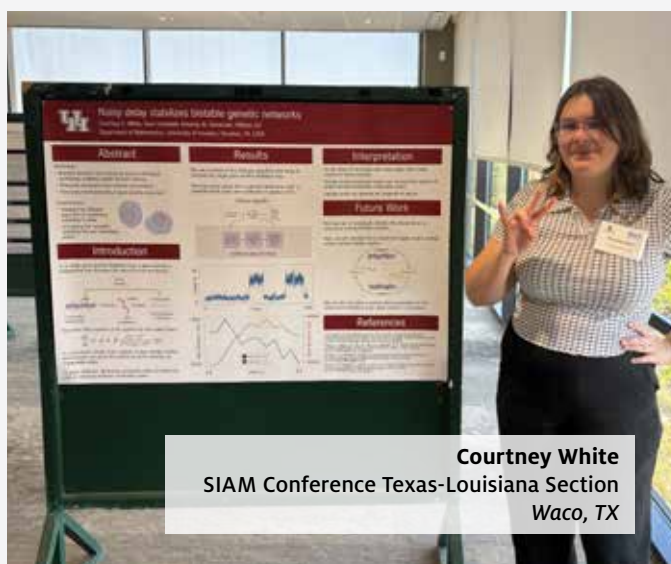
**Katelyn Nguyen and Ashley Arrambide**  
American Speech and Hearing Association Convention  
Seattle, WA



**Theo Andre**  
Neuroscience 2024  
Chicago, IL



**Ushanth Balasuriya**  
APS Division of Fluid Dynamics Annual Meeting  
Salt Lake City, UT



**Courtney White**  
SIAM Conference Texas-Louisiana Section  
Waco, TX

"I had the incredible opportunity to present my poster...From this experience, I learned the importance of bringing my full self to the field."

**Julia Gorman**, SACNAS National Diversity in STEM Conference, Phoenix, AZ



# SENIOR HONORS THESIS

The undergraduate **Senior Honors Thesis** program at the University of Houston is a two-semester, six-credit-hour capstone research experience completed under the guidance of a faculty mentor. Students of all majors can participate and membership in the Honors College is not required.

The Office of Undergraduate Research and Major Awards in the Honors College collaborates with the college of the student's major to oversee the thesis process and approval. Students who successfully complete the Senior Honors Thesis program will graduate with an Honors in Major designation noted on the official transcript.

Congratulations to the following students for their outstanding work in the Senior Honors Thesis program.

## Outstanding Senior Honors Thesis Award Recipients, 2023-2024

### Raul Caballero Montes

Biology

*"Stem Cells in Pancreatic Cancers: Diversity, Treatment, and Interactions with Microenvironment"*

Directed by Frank McKeon

### Melanie Adhikary

English

*"Exercising Agency in the Domestic Sphere: Imagining Womanhood and Sacrifice"*

Directed by Amanda Ellis

### Sarah Belew

Psychology

*"University Student Support, Engagement, and Well-being"*

Directed by Olivia E. Atherton

### Megan Dagnall

History

*"University of Houston: The Expansion and Erasure of Diversity, Equity, and Inclusion, 1961-2024"*

Directed by Debbie Harwell

### Alivia Mayfield

History

*"Alexander the Great: A Historiography of Power"*

Directed by José Angel Hernández

### Andrew Chase

Architecture

*"Encased Utopias: A Case Study of Three Hungarian Panelház Estates"*

Directed by Deepa Ramaswamy

### James Valentine

Mechanical Engineering

*"Bolt Looseness Monitoring Using Percussion and Clustering Machine Learning Methods"*

Directed by Gangbing Song





# UNDERGRADUATE RESEARCH MENTOR AWARDS

The Office of the Provost in conjunction with the Office of Undergraduate Research and Major Awards offers Undergraduate Research Mentor Awards to honor the dedicated practice of undergraduate mentorship at the University of Houston. These awards recognize excellence in supporting undergraduate research and convey the campus' high regard for outstanding contributions made to the academic and research community. Award winners advise and work one-on-one with students on personalized, creative, enriching projects; they are committed to providing undergraduate research experiences above and beyond the classroom.

The Office of Undergraduate Research and Major Awards congratulates the 2024 Undergraduate Research Mentor Award recipients: **Virmarie Correa-Fernández**, **Jerrod A. Henderson**, and **Melissa L. Zastrow**.



## **VIRMARIE CORREA-FERNÁNDEZ**

*Associate Professor and Associate Chair, Psychological, Health, and Learning Sciences (PHLS)*

Virmarie Correa-Fernández is the director of the Latino and Behavioral Health Research Team (LABHRT), where she is committed to generating knowledge and practices to understand and reduce tobacco-related and behavioral health disparities, particularly among Latine/Hispanic ethnic groups. Since joining the University of Houston in 2015, she has formally mentored 22 undergraduate students, with two becoming co-authors in peer-reviewed publications. She is intentional about creating presentation opportunities for her students: 11 of her undergraduate mentees have participated in research posters and two have led oral presentations at the PHLS Symposium. Dr. Correa-Fernández aims to be the mentor she needed when she was a student, and achieves that goal through structure with flexibility, participatory learning, role modeling, and representation. "Via my teaching and mentoring experiences at UH, I have appreciated how much I enjoy contributing to students' learning and curiosity about research," writes Dr. Correa-Fernández.



## **JERROD A. HENDERSON**

*Assistant Professor, Chemical and Biomolecular Engineering*

Jerrod A. Henderson leads the Henderson Research Group (HRG), which has received nine National Science Foundation awards and one NASA Grant for its mission towards understanding Engineering Identity Development using interpretative qualitative methods and participatory action research methods such as Photovoice and Photo Elicitation. Since joining the University of Houston in 2016, he has mentored 18 students in his lab, with nine presenting their research and four as co-authors in journal publications. Two of Dr. Henderson's undergraduate mentees have won poster presentation awards from the American Institute of Chemical Engineers (AIChE), with one also recognized as a Black Engineer of the Year for Undergraduate Research. The pillars of Dr. Henderson's mentoring philosophy include challenging students while learning from them, coaching, providing opportunities to lead, and providing regular feedback. "I also appreciate the well-documented literature suggesting that students who participate in undergraduate research excel in the classroom, are more likely to continue in STEM majors (especially for underrepresented students), and are more likely to persist in STEM careers," writes Dr. Henderson.



## **MELISSA L. ZASTROW**

*Associate Professor, Chemistry*

Melissa L. Zastrow's research combines biochemical and analytical approaches with microbiology to uncover and examine the roles of essential metals in the gut microbiota. Her lab, the Zastrow Group, is supported by the University of Houston, National Institutes of Health, National Science Foundation, and the Welch Foundation. For her dedicated instruction, she received the NSM John C. Butler Excellence in Teaching Award in 2022. Since joining the University of Houston in 2017, she has mentored 14 undergraduates, eight of whom have been co-authors and seven who have presented posters at both Undergraduate Research Day and external opportunities. Dr. Zastrow's philosophy centers on building a strong mentor-mentee relationship with mutual respect and responsibility. "In general, I aim to be an open-minded mentor, be willing to learn from my mentees, and work towards creating a positive environment for all trainees to learn and develop as students and scientists," writes Dr. Zastrow.

# UNDERGRADUATE RESEARCH AT UH LIBRARIES

UH Libraries supports student research by preserving and making accessible rare, archival collections, and by providing resources and expert guidance for scholarly projects.

Creative writing major Amara Holeman is working with university archivist Mary Manning on her project “Gulf Coast Sound,” an exploration of Houston music from the 1920s-60s. Holeman’s participation on the project is through the Research for Aspiring Coogs in the Humanities (REACH) program, which provides a year-long introductory research experience for students in humanities disciplines by connecting them to existing scholarly projects at UH. Holeman is engaging in primary and secondary source research related to regional musicians, bands, studios, and record labels, with the goal of creating content that will be added to a digital humanities project, facilitating access to the rich musical heritage of Houston.

UH Libraries offers a variety of research services open to all UH scholars, such as helping undergrads:

- Frame your research approach
- Develop a search strategy
- Discover library resources

Contact [libteach@uh.edu](mailto:libteach@uh.edu) to get started.

“Research, no matter what your degree or career plan may be, is a very important skill. You have the opportunity to learn more about a subject you weren’t familiar with before, it connects you to people with vastly different lives and paths than the one you’re on, and knowing how to properly develop research skills will follow you no matter where you go in life.”



**AMARA HOLEMAN**

Mentor: Mary Manning

*The Gulf Coast Sound: Music in East Texas Coastal Region*

*Thank you to UH Libraries for supporting undergraduate research at the University of Houston.*









# 2025 UNDERGRADUATE RESEARCH DAY PRESENTERS



# 2025 UNDERGRADUATE RESEARCH DAY

## PRESENTERS

Undergraduate Research Day celebrates the achievements of all University of Houston undergraduates pursuing faculty-mentored research. Congratulations to the following students.

### INDIVIDUAL PRESENTATIONS

#### Nine Abad

Mentored by Abigail Modaff  
Honors, History

Apparitions of Fear and Power:  
Reading Biopower and Monster  
Theory to Figures of Filipino  
Queerness, Femininity, and  
Indigeneity

#### Cyrus Abbasi

Mentored by Mahdi Safa and Siavash  
Zamiran  
Civil and Environmental Engineering  
Catalytic Conversion Scalability for  
Industrial Carbon Management

#### Sama Abdelaziz

Mentored by Xin Fu  
Electrical and Computer Engineering  
Enhancing Underwater Image Quality  
With Convolutional Neural Networks

#### Nikhila Achanta

Mentored by Andrew Kapral  
Honors, Engaged Data Science  
Respiratory Health at the Fenceline:  
The Shadow of Industry and Primary  
Care Access in Harris County

#### Srivarshini Achanta

Mentored by Sandra Davidson  
History  
The Lasting Impact of the 1977  
National Women's Conference:  
Policy Trajectories and Conservative  
Responses in Houston

#### Aleeza Adil

Mentored by Hanako Yoshida  
Psychology  
The Role of Infant Age in Parental  
Attention-Shifting Patterns

#### Kianna Agyekum

Mentored by Thomas S. Teets and Soumi  
Chakraborty  
Chemistry  
Synthesis of 4-Coordinate Cu(I)-  
Photosensitizer

#### Amaan Ahmed

Mentored by Raul Susmel  
Finance  
Investigating Informational Efficiency  
in European Emissions Markets: A  
Multifractal Approach

#### Emmanuella Aigboduwa

Mentored by Harish Sarma  
Krishnamoorthy  
Electrical and Computer Engineering  
Battery System Optimization in  
Energy Management

#### Sachitha Aithal

Mentored by Ming Hu  
Pharmacological and Pharmaceutical  
Sciences  
Impact of Saliva Collection Method  
on the Recovery of Drugs and  
Metabolites From Saliva

#### Adebola Akinrinade

Mentored by Charles Layne  
Health and Human Performance  
Limb Coordination Patterns Are  
Modified Depending Upon the  
Perceived Consequences During a  
Reach and Grasp Task

#### Farah Al Hadad

Mentored by Richard Willson and Carly S.  
Filgueira  
Chemical and Biomolecular Engineering;  
Houston Methodist, Nanomedicine and  
Cardiovascular Surgery  
Antibody-Conjugated Gold Nanorods  
As Photoacoustic Imaging Contrast  
Agents to Target the Heart

#### Fabiha Alam

Mentored by Monique T. Mills and  
Shaimaa Scrivner  
Communication Sciences and Disorders  
Language Processing in Children

#### Angelina Albelo

Mentored by Mehmet Şen  
Biology and Biochemistry  
Construct as a First Step to  
Determining Ligand Preferences for  
Next-Gen Drug Design

#### Aihanuwa Ale

Mentored by Andrew Kapral  
Honors, Engaged Data Science  
Vouchers and Vulnerabilities: How  
School Voucher Legislation Affects  
Special Education in Texas

#### Tristan Alhadad

Mentored by Devin Shaffer  
Civil and Environmental Engineering  
Synthesizing and Characterizing  
Lithium-Selective Covalent Organic  
Framework (COF) Membranes

#### Ameen Ali

Mentored by Tianfu Wu  
Biomedical Engineering  
Multiplex Lateral Flow Assay  
for Simultaneous Detection of  
Osteopontin and Cystatin C

#### Zahra Ali

Mentored by Hanako Yoshida  
Psychology  
Differences in Attention During  
Parent-Child Play Sessions Between  
Bilingual and Monolingual Children  
With Autism

#### Yasmine Almadi

Mentored by Min Kang  
Industrial Design  
A Systems Design Approach for  
a Circular Economy in the Coffee  
Industry and Community

# 2025 UNDERGRADUATE RESEARCH DAY

## PRESENTERS

### **Radiya Almosa**

Mentored by Craig Johnston  
Health and Human Performance  
Examining Biomarkers and Eating Behaviors in College Students: A Sex-Based Perspective

### **Mustafa Alshahristani**

Mentored by Nagham Al-Zubidi  
MD Anderson Cancer Center, Head and Neck Surgery  
Cemiplimab in Squamous Cell Carcinoma With Perineural Invasion and Ophthalmoplegia

### **Mariam Aly**

Mentored by Julie C. Dunsmore  
Psychological, Health, and Learning Sciences  
The Role of Culture as a Social Determinant of Healthcare Experiences of Arab Americans

### **Suleyman Ancin**

Mentored by Kelly Huang  
Mechanical and Aerospace Engineering  
The Role of Emergent Vegetation in Wetland Gas Movement and Hydrodynamic Patterns

### **Salma Ansari**

Mentored by Tianfu Wu and Aygun Teymur  
Biomedical Engineering  
Advanced Multiplex Lateral Flow System for Detection of OPN and Cystatin C in the Urine of Lupus Nephritis

### **Naumi Aparanji**

Mentored by Nouhad Rizk  
Computer Science  
Evaluating Peer Mentorship Benefits in New Computer Science Students

### **Ali Ardda**

Mentored by Xiaonan Shan  
Electrical and Computer Engineering  
Robotic Dog Automation & a Digital Pipette Design

### **Zane Augulis**

Mentored by Piruz Saboury  
Economics  
The Impact of Donor Funding on Collegiate Institutional Performance

### **Dalia Awad**

Mentored by Richard Meisel  
Biology and Biochemistry  
Sex-Specific Gene Expression Differences in *Drosophila melanogaster* Heads Revealed by RNA-Sequencing Analyses

### **Alora Baehr**

Mentored by Eunjeong Lee and Rikki Bettinger  
English; Office of Undergraduate Research and Major Awards  
A Discussion on Disability: The Language of Chronic Pain

### **Ke'La Barnes**

Mentored by Julia Babcock  
Psychology  
When Dominance Drives: Exploring Moderators of Intimate Partner Sexual Coercion

### **Lindsay Bevers**

Mentored by Michael Zvolensky and Justin Shepherd  
Psychology  
The Association Between Anxiety Sensitivity and Eating Expectancies in Hispanic Emerging Adult College Students

### **Ria Bhatia**

Mentored by Michael D. Snediker  
English  
Reading Hardy's Victorian Antiheroine, Tess of the d'Urbervilles, as a Saidian Contrapuntal "Other"

### **Juhi Bhatt**

Mentored by Hanako Yoshida and Johanna Bick  
Psychology  
Project Mimic: Exploring Facial Mimicry in Parent-Infant Dynamics

### **Zahra Bhattacharya**

Mentored by Wenshuang Wang and Jian Shi  
Mathematics; Engineering Technology  
Evaluating the Impact of Carbon Pricing Discrepancies on Global Climate Strategies: Implications From the Paris Agreement

### **Afzila Bhojani**

Mentored by Marc Hanke and Jennifer Lynn Spencer Clinton  
Honors, Biology; Baylor College of Medicine, Pediatrics  
CXCR3 Antagonism Reduces Zika and West Nile Virus Replication Across Various Cell Types

### **Victoria Blake**

Mentored by Ann Christensen  
English  
Folklore and Mythology of Shakespeare's *A Midsummer Night's Dream*

### **Lucy Blood**

Mentored by Kerri Crawford and Kayla Zinsmeyer  
Biology and Biochemistry  
What Is the Effect of Cultivated Native Microbial Soil Amendments on Coastal Dune Restoration Efforts?

### **Alissa Boxleitner**

Mentored by Zelma Oyarvide Tuthill  
Sociology  
Resources for Houstonians Experiencing Human Trafficking and Commercial Sexual Exploitation

### **Brandon Burlison**

Mentored by Jeff Feng  
Industrial Design  
Developing a Headset Integrating Vision Testing and VR With EEG Scanning

### **Kadilo Buzugbe**

Mentored by Laura Bland  
Honors, English  
The Inability of AI Chatbots to Write Poetry



**Catherine Cabrera**

Mentored by Tony Liao  
Information Science Technology

Understanding Perceptions and  
Conversations With Augmented  
Reality Avatars

**Hy Cao**

Mentored by Margarida Albuquerque  
Almeida Santos  
MD Anderson Cancer Center, Epigenetics  
and Molecular Carcinogenesis  
Regulation of CBP Protein Stability by  
CARM1 Activity

**Owen Christian Capule**

Mentored by Richard Meisel  
Biology and Biochemistry  
Understanding the Roles of Bicoid  
and Broad in Lysozyme Production

**Nicholai Caterina**

Mentored by Michael D. Snediker  
English  
The Spectral Sequence: An  
Exploration of Destiny, Nature, and  
Eulogy Through Aesthetic Topology

**Jonathan Chan**

Mentored by Kerri Crawford  
Biology and Biochemistry  
The Impact of Climate Change on Soil  
Microbial Ecosystems

**Seaver Chester**

Mentored by P. Shiv Halasyamani and  
Eric Gabilondo  
Chemistry  
Synthetic Exploration of a New  
Yttrium Borate-Based Solid Solution,  
(K7-XNa)SrY2B15O30, for Deep UV  
Nonlinear Optical Applications

**Nour Chibani**

Mentored by Emily LaVoy and Maria  
Chang Swartz  
Health and Human Performance; MD  
Anderson Cancer Center, Pediatrics  
The Impact of Physical Activity  
and Exercise on Cancer-Related  
Fatigue Among Adolescents and  
Young Adults With Brain Tumors: A  
Systematic Review

**Anderson Chitsosa**

Mentored by Tameka A. Clemons  
Biomedical Sciences  
AMYLIN: A Potential Contributor of  
Amyloid Beta Aggregation

**Cheery Chukwukelu**

Mentored by Jerrod Henderson  
Chemical and Biomolecular Engineering  
An Exploratory Analysis of Cultural  
Capital Among Black Engineering  
Students at Minority Serving  
Institutions (MSIs)

**Simrat Clair**

Mentored by Christoph F. Eick  
Computer Science  
Association Analysis of Crime From  
the Victim's Perspective

**Bradley Cline**

Mentored by Tian Chen  
Mechanical and Aerospace Engineering  
Properties of 3D Printed Flat and  
Volumetric Knits

**Reece Collins**

Mentored by Ben Rayder  
Office of Undergraduate Research and  
Major Awards  
The MERIT Mammography Cohort  
to Develop Improved Screening for  
Breast Cancer Through Integration of  
AI and Blood Based Biomarkers

**Taylor Cornett**

Mentored by Robert Fox  
Biology and Biochemistry  
Identifying Irregular Polygon Packing  
Geometries Within Protein Families

**Jonathan Cruz**

Mentored by Daphne Hernandez  
Health and Human Performance  
Modifications Based on Cognitive  
Interviews to the Spanish-Language  
Food Security Survey Module  
(S-FSSM)

**Juliana Dahlhoff**

Mentored by Allison Master and Sydney  
Baker  
Psychological, Health, and Learning  
Sciences  
How Gender-Language Arts  
Stereotypes Predict Achievement for  
Adolescents

**Paul Daniel**

Mentored by Norma E. Olvera  
Psychological, Health, and Learning  
Sciences  
School and Neighborhood Health  
Perceptions of Hispanic and African  
American Youth: Advocating for  
Healthy Communities

**Linh Dau**

Mentored by Cumaraswamy  
Vipulanandan  
Civil and Environmental Engineering  
Evaluating the Effect of Coffee  
Powder During Curing Process of  
Cement Paste

**Joaquin Davila**

Mentored by José Angel Hernández  
History  
Disease in the Making of the Texas-  
Mexico Borderlands and the Mexican  
Race: The Case of Typhus Fever

**Saptarshi De**

Mentored by Daniel Biediger  
Computer Science  
Emotion Tracking Using Facial  
Analysis and ML for Stress  
Management

**Yumei De La Barreda**

Mentored by C. Raymond Knee  
Psychology  
First-Generation Status and  
Negative Mental Health Outcomes  
As Moderated by Familial Basic  
Psychological Need Frustration

**Shalaka Dhavalikar**

Mentored by Pranav J. Parikh  
Health and Human Performance  
Making Sense of Movement: A  
PCA Based Model for Quantifying  
Pediatric Hand Movement Quality

**Norverto Diaz**

Mentored by Donna Kacmar  
Architecture  
A Holistic Approach in Third Ward  
Material Analysis

**Lauren DiPaola**

Mentored by Greg Morrison and Matheus  
Mello  
Physics; Rice University, Center for  
Theoretical Biological Physics  
Comparison of mRNA Transport  
Rates in the Traditional and Inverted  
Nuclear Architectures

**Dang Do**

Mentored by Martin A. Nuñez  
Biology and Biochemistry  
UH Green Roof: Impact of Rainfall  
and Implications for Compatibility of  
Native Wildflowers

**Yasmeen Elfeki**

Mentored by Seoung Hoon Park  
Health and Human Performance

Effects of Phasic Transcutaneous  
Spinal Stimulation Paired With  
Visually Guided Weight Transfer in  
Individuals Post Stroke

**Samma Elhammady**

Mentored by Bradley H. Smith  
Psychological, Health, and Learning  
Sciences

Comparing Two Summer Camps With  
the Four Types of Fun Framework

**Hamza Fadel**

Mentored by Lori Hathon and Gabriel  
Unomah  
Petroleum Engineering

The Effect of Effective Stress and  
Temperature on Ultrasonic Velocities  
in Sands: Monitoring CO<sub>2</sub> Storage

**Luiz Fernandez**

Mentored by Tai-Yen Chen  
Chemistry

Spatial Super-Resolved Fluorescence  
Lifetime Imaging Microscopy (FLIM)  
Using a Compress Sensing Strategy

**Luke Filyk**

Mentored by Abigail Modaff  
Honors, History

The Correlation Between Lynchings  
and State Sanctioned Murder

**Ana Frausto-Leija**

Mentored by Gabriela Baeza Ventura and  
Carolina Villarroel  
Arte Público Press

Eloise Garcia Castillo: Proof of  
Political Participation

**Evan Fraustro**

Mentored by Weidong Shi  
Computer Science

Text to Music Generation Using  
Generative AI

**Madison Freeman**

Mentored by Amber Thiessen  
Communication Sciences and Disorders

Effectiveness of Keywording as a  
Communication Tool for Persons  
With Aphasia

**Nathan Fuentes**

Mentored by Emily LaVoy  
Health and Human Performance

Mitochondrial Function in T-cells: The  
Impact of Cardiorespiratory Fitness  
and Body Fat in Men and Women

**Maggie Fuller**

Mentored by Preethi Gunaratne and Greg  
Morrison

Biology and Biochemistry; Physics

Discovering Immunogenic  
Neopeptides From Novel Chimeric  
RNA FGFR3-KHSRP to Develop  
Vaccines for Pancreatic Cancer

**Isabela Garcia**

Mentored by Michael Murphy  
Earth and Atmospheric Sciences

Neotectonic Investigation of the Red  
Rock Fault: Sheep Creeks Segment

**Jonathan Gaucin**

Mentored by Vedhus Hoskere  
Civil and Environmental Engineering

Corrosion-Under-Coating Detection  
With Pulsed Infrared Thermography

**Luke Ging**

Mentored by Daphne Hernandez  
Health and Human Performance

Food Insecurity and Health Goals  
Among Young Adults Experiencing  
Homelessness

**Keila Gonzalez**

Mentored by Rosenda Murillo  
Psychological, Health, and Learning  
Sciences

Higher Psychological Distress Is  
Associated With Higher Alcohol  
Consumption in Latinos

**Valeria Gonzalez**

Mentored by William Truitt  
Architecture

The True Cost of Free Trade Zones

**Julia Gorman**

Mentored by Erin Kelleher and Lorrissa  
Saiz

Biology and Biochemistry

Designing a Multi-Variant Construct  
to Determine the Causative Variant  
of Reduced Dysgenic Sterility

**Emily Graves**

Mentored by Adam Stuckert  
Biology and Biochemistry

Spectral Analysis of Aposematic  
Coloration Across Mimetic  
Populations of the Peruvian  
Ranitomeya

**Agnes Gunawan**

Mentored by Yu Liu  
Biology and Biochemistry

Role of MYLK4 in C2C12 Myoblast  
Differentiation and Metabolic  
Enzyme Activity

**Arnav Gupta**

Mentored by Raul Susmel  
Finance

Correlation Analysis of Energy  
Transition Factors and Brent Oil  
Prices

**Tico Hannan**

Mentored by Gangbing Song  
Mechanical and Aerospace Engineering

State of Health Estimation of  
Cylindrical Lithium-Ion Cells Using  
Multiple Random Convolutional  
Kernel Transform and Low-Frequency  
Stress Waves

**Pranav Hariharan**

Mentored by Richard Meisel  
Biology and Biochemistry

Exploring Sex-Biased Expression of  
Polo-like Kinase (Plk) Genes in *D.  
melanogaster*

**Mia Harris**

Mentored by Irene Guenther  
Honors, History

Lynn Eusan's Legacy in the Greater  
3rd Ward Community

**Tisha Haukongo**

Mentored by Abdul L. Khan  
Engineering Technology

Synthetic Microbial Communities for  
Plant Stress Tolerance

**Brianna Haynes**

Mentored by Haylee Harrell  
English

Pleasure and Respectability:  
Navigating Motherhood, Identity, and  
Agency in Black Women's Literature



**Alfredo Hernandez**

Mentored by Jian Shi  
Engineering Technology  
Forecasting Energy Consumption  
During Hurricanes Using Machine  
Learning

**Edgar Hernandez**

Mentored by Lorra Garey  
Psychology  
Craving the Clouds: Approach Bias  
and the Struggle to Quit Combustible  
Cigarettes and Electronic Cigarettes

**Joey Hernandez**

Mentored by Andrew Kapral  
Honors, Engaged Data Science  
Resilience in Transition:  
Socioeconomic Disparities in  
the Post-pandemic Recovery of  
Houston's Community Hubs

**Nathan Hernandez**

Mentored by Yi-Chao Chen  
Mechanical and Aerospace Engineering  
A Simple Mathematical Model to  
Determine Pressure Drop Throughout  
the Bronchial Tree

**Dyma Hikmat**

Mentored by William Ott and Kyle  
Williams  
Mathematics  
Evader Detection in Hyperbolic  
Sensor Networks

**Amara Holeman**

Mentored by Mary Manning  
UH Special Collections  
The Web of the Thomas Family: How  
Sippie and Her Family Relate to the  
Connections Within Music

**Donna Iles**

Mentored by Thomas S. Teets and  
Sungwon Yoon  
Chemistry  
Design for Cyclometalated Platinum  
Complexes for Enhanced Red  
Emission

**Alveena Imran**

Mentored by Daphne Hernandez and  
Natalia I. Heredia  
Health and Human Performance;  
UTHealth Houston, Health Promotion and  
Behavioral Sciences  
The Effect of a Culinary Medicine  
Intervention on the Dietary Habits of  
Patients With Type 2 Diabetes

**Suhaib Irfan**

Mentored by Christoph F. Eick and  
Raunak Sarbajna  
Computer Science  
The Development of a Lunar  
Navigation System Utilizing Cost  
Based Path-Finding Algorithms

**Ahmad Ismat**

Mentored by Moawiz Saeed  
UT Health San Antonio  
Treatments of Urinary Leaks:  
Spectrum of Interventions for  
Diverse Pathologies and IR Treatment  
Experience

**Ahsan Ismat**

Mentored by Moawiz Saeed  
UTHealth San Antonio  
Lyme Disease Presenting As Rupture  
Baker's Cyst

**Lizbeth Jaimes**

Mentored by Jaye L. Derrick  
Psychology  
Social Media Posts Depicting Hyper-  
Masculine or Feminine Dominant  
Ideals: Does It Influence the Well-  
Being of Young Adults Romantic  
Relationships?

**Funmilola Jesse**

Mentored by Alexandra Landon  
Honors Engineering Program  
Mitigating Carbon Emissions in the  
Oil & Gas Sector: A Comparative  
Economic Analysis of the US and  
Nigeria

**Kailey Jirsa**

Mentored by Ben Rayder  
Office of Undergraduate Research and  
Major Awards  
Comparative Analysis of  
Undergraduate Research in Different  
Disciplines at the University of  
Houston

**George Johnson**

Mentored by Pablo Troncoso  
Economics  
Artificial Intelligence and Automation  
and Its Effect on Foreign Labor

**Joyce Joy**

Mentored by Daphne Hernandez and  
Annalynn Galvin  
Health and Human Performance;  
UTHealth Houston, Cizik School of  
Nursing  
Perinatal Nutrition Knowledge and  
Sources of Information Among  
Recently Postpartum Women  
Experiencing Homelessness: A  
Convergent Parallel Mixed-Methods  
Study

**Aila Khan**

Mentored by Johanna Bick and Haley  
Laughlin  
Psychology  
The Impact of NICU Stay on  
Prematurely Born Toddlers' Visual  
Engagement Processes: A Task-  
Related EEG Study

**Anisah Khan**

Mentored by Auritro Majumder  
English  
The Great Indian Divide of 1947: Told  
by Two Generations

**Fatima Khan**

Mentored by Hanako Yoshida  
Psychology  
Parental Education and Child  
Vocabulary Outcomes: The Role of  
Parent Labeling and Child Visual  
Attention Synchrony During Parent-  
Child Play

**Rex Kidd**

Mentored by Andrew Kapral  
Honors, Engaged Data Science  
From Vacant to Vibrant: Suitability  
Testing and Estimating Impacts of  
Vacant Plots for Potential Urban  
Agriculture in Harris County

**Cameron Klassen**

Mentored by Mili Kyropoulou  
Architecture  
Let Me Go Semi-Outside: A  
Human-Centric Analysis of Outdoor  
Comfort Models in a Hot-Humid  
Semi-Outdoor Environment During  
Summer and Mid-Season

**Carter Klebuc**

Mentored by Aaron Becker  
Electrical and Computer Engineering  
UAV GPS-Denied Navigation via  
Coastal Navigation Motion Planning

**Medha Kukkali**

Mentored by Elizabeth Jelsma and Mahnoor Ahmad  
Psychological, Health, and Learning Sciences

Effects of John Henryism Active Coping and Lifetime Discrimination on Sleep Outcomes

**Fahim Kunhi Mohamed**

Mentored by Michael Ray Newman  
Accountancy and Taxation

Impact of Artificial Intelligence in Accounting

**Gabrielle Lansangan**

Mentored by Melody Yunzi Li  
Modern and Classical Languages

Intergenerational Relationships and Inheritance in Chinese Science Fiction: Negotiation Between Tradition and Modernity

**Anh Le**

Mentored by Jeffrey Rimer  
Chemical and Biomolecular Engineering  
Understanding Calcium Phosphate Crystallization: Brushite

**Danny Le**

Mentored by Mehmet Şen  
Biology and Biochemistry

Magnesium in the Stability and Behavior of the  $\alpha$ L-I Domain

**Jacqueline Le**

Mentored by Ling Zhu  
Political Science

Impact of Affirmative Action Policy on Public University Campus Diversity

**Rosemarie Faustina Le**

Mentored by Andrew Kapral  
Honors, Engaged Data Science

Beyond Just Books: Public Libraries As Lifelines in Texas's Rural, Suburban, and Urban Communities

**Tuyen Le**

Mentored by Sarasij Majumder  
Modern and Classical Languages

Kawaii As Politics: The Visible-Invisibility of Oriental Japan

**Eric Lee**

Mentored by Tania Chen  
Stanford School of Medicine, Cardiovascular Medicine

Language as a Barrier to Involvement of Asian Americans in Cardiovascular Clinical Trials

**Jacob Leipold**

Mentored by Mehmet Şen  
Biology and Biochemistry

Structural Impact of the N-Terminal Flanking Peptide on VWF A1 Domain

**Grace Lewis**

Mentored by Hanako Yoshida and Sarah Mire

Psychology; Baylor University, Educational Psychology

The Effect of Autism and ADHD on Children's Attentional Engagement

**Ricardo Leyba**

Mentored by Lars Grabow  
Chemical and Biomolecular Engineering

Insights Into the Reaction Mechanism of PtCu Alloys As Catalysts for CO Oxidation

**Natalie Linde**

Mentored by Marzia Cescon and Daniel Joseph DeSalvo

Mechanical and Aerospace Engineering; Baylor College of Medicine, Pediatrics

Evaluating Glycemic Outcomes in Youth With Type 1 Diabetes Using Omnipod 5 AID System

**Rebekah Loriga-Oliveira**

Mentored by Cory Meals  
School of Music

Effects of Music Marking on Singing Accuracy During Sight-Reading

**Sydney Lozado**

Mentored by Ioannis Konstantinidis and Andrew Kapral

Honors, Data and Society

Get Out the Vote! An Analysis of Voter Turnout in Midterm Elections Across Harris County Census Tracts

**Orion Lucero**

Mentored by Zhengwei Li  
Biomedical Engineering

Development of Implantable Bioelectronic Device for Bladder Stimulation

**Sydney Aleanna Magat**

Mentored by Clayton Neighbors and Andrew Weinstein  
Psychology

Contextual Factors in Drinking Likelihood Among College Students With ASD Symptomatology

**Ali Mahmud**

Mentored by Wa Xian and Frank McKeon  
Biology and Biochemistry

Mucosal Stem Cells From Crohn's Disease: The Role of DcR3 in Defense Mechanisms Against FasL-Induced Apoptosis

**Alexandrine Makhoul**

Mentored by Martin A. Nuñez  
Biology and Biochemistry

The Globalization of Native American Plants: From Food Staples to Gourmet Superfoods

**Swarnil Mandal**

Mentored by Gang Li  
MD Anderson Cancer Center, Biologics and Immunotherapy Translation

Evaluating the Efficacy of CBP/p300 Inhibitors and Degraders As ADC/DAC Conjugates in Cancer Therapy

**Swarnil Mandal**

Mentored by Lisa Mustachio  
MD Anderson Cancer Center, Applied Cancer Science

Inhibiting Mutant RAS Inhibitors in Cell-Based Assays

**Eira Mann**

Mentored by Yu Liu  
Biology and Biochemistry

Role of RNA Regulator CELF1 in DNA Damage Repair

**Collin Mansur**

Mentored by Michelle Belco  
Honors, Political Science

Interstate Water Compacts: Gauging Effectiveness and Adaptability to Climate Change

**Jack Markham**

Mentored by Clayton Neighbors and Andrew Weinstein  
Psychology

The Association Between Depression, Impulsivity, and Aggression



**Ibraheim Maudood**

Mentored by Chandra Mohan and Aalekhya Biswas  
Biomedical Engineering  
In Vitro Analysis of TH2-Like Cytokines on EMT-Related Protein Expression in M2 Macrophages

**Enoabasi Mbaba**

Mentored by Bradley H. Smith  
Psychological, Health, and Learning Sciences  
A Prayer a Day Keeps CAPS Away: Is Religiosity Associated With the Happiness and Mental Well-Being of Minority College Students?

**Isha Merchant**

Mentored by Mohan Ambikaipaker  
Modern and Classical Languages  
Queering the South Asian Diaspora: A Look Into Finding Love and Community

**Kelsey Middleton**

Mentored by Haylee Harrell  
English  
Black Narratives in Print: Analyzing Intergenerational Trauma in Memphis: A Novel & 20th Century Newspapers

**Zunaira Mirza**

Mentored by Thomas S. Teets  
Chemistry  
Visible-Light Catalytic Transformation of Unactivated Alkyl Halides Enabled by Strongly Reducing Photosensitizers

**Haneef Mohammed**

Mentored by Jinsook Roh and Kyoungsoo Kim  
Biomedical Engineering  
Quantifying Abnormal Flexion Synergy Using an Upper-Extremity Exoskeleton for Stroke Rehabilitation

**Maryam Mohy**

Mentored by Sandra Zalman  
Art History  
Long Live Degenerate Art: The Struggle for a National Identity in 20th Century Egyptian Art

**Tasneem Monib**

Mentored by Todd Romero  
History  
Arab Migration in Gulf Coast Foodways

**Jesus Morales Cruz**

Mentored by Daphne Hernandez  
Health and Human Performance  
Various Measures of Housing Instability as Predictors of Food Insecurity

**Macy Mosier**

Mentored by Daniel Onofrei  
Mathematics  
A Novel Iterative Method for Beam Focusing With an Antenna Array

**Maryam Mukhtarov**

Mentored by Richard Meisel  
Biology and Biochemistry  
Investigating the Role of Gut Specific Relish Expression in Aging in *Drosophila melanogaster*

**Katerina Munoz**

Mentored by Jennifer L. Adams  
Sociology  
From Confined to Inclusive Masculinity: Video Games, Masculinity, and Homosocial Connection

**Katerina Munoz**

Mentored by Carolina Villarroel and Lorena Gauthereau  
Arte Público Press  
La Mujer En Acción: Latina Contributions and Connections in Early 20th Century Press

**Maryam Naeem**

Mentored by Wenshuang Wang  
Mathematics  
The Effect of Extreme Heat Events on Renewable Energy Sources

**Mahima Nagaraj**

Mentored by Carl E. Allen  
Baylor College of Medicine, Pediatrics  
Investigating Macrophage Phagocytosis in Ms4a3-CreBRAV600E and Cd11c-CreBRAV600E

**Netra Nagoor**

Mentored by Andrew Kapral  
Honors, Engaged Data Science  
Understanding the Financial Burden of Chronic Respiratory Conditions in Houston

**Anjalee Nair**

Mentored by Andreas Mang  
Mathematics  
Exploration of the Workings of Neural Networks

**Afra Nawar**

Mentored by Jaspal Subhlok  
Computer Science  
Evaluating KeyBERT for Keyword Extraction in Lecture Videos

**Adam Nelson-Archer**

Mentored by Christoph F. Eick and Raunak Sarbajna  
Computer Science  
Synthesis of Lunar Horizon Imagery Using Generative Models

**Angela Nguyen**

Mentored by Chandra Mohan  
Biomedical Engineering  
The Molecular Basis of Blood-Brain Barrier Breach and Cognitive Impairment in Neuropsychiatric SLE As Revealed by Proximity Extension Assay Proteomics

**Emily Nguyen**

Mentored by Heather Caslin  
Health and Human Performance  
Investigating the Epigenetic Regulation of Innate Immune Memory

**Katelyn Nguyen**

Mentored by Monique T. Mills and Grace Lee  
Communication Sciences and Disorders  
Examining Pre-service Teachers' Perceptions of Narrative Language Quality in School-Age African American English Speakers

**Minh Nguyen**

Mentored by Ioannis Konstantinidis  
Honors, Data and Society  
What Are the Leading Causes That Affected the Marginal Difference in COVID-19 Vaccination Rates in the Houston Community (Harris County)?

**Adithi Nythruva**

Mentored by Abigail Modaff  
Honors, History

Reframing Jewish Feminism in America: An Analysis of American Jewish Women and the Negotiation of Their Jewish and Feminist Identities Pre-World War 2 to Post-World War 2

**Adithi Nythruva**

Mentored by Irene Guenther  
Honors, History

Local 872: Houston's Black Longshoremen's Union and Its Relevance in Researching Lynn Eusan's Life and Death

**David Odejimi**

Mentored by Andrew Kapral and Ioannis Konstantinidis  
Honors, Data and Society

The Impact of High Imprisonment Numbers and Tough Sentences for Non-Violent Crimes on Racial Bias Within the Criminal Justice System of Harris County

**Amarachukwu Okeke**

Mentored by Erin Kelleher and Shahrzad Hajjarbabi  
Biology and Biochemistry  
The Role of UDP-Glycosyltransferases and Cytochrome P450s in UVB Tolerance

**Alexa Olivi**

Mentored by Bernhard Rappenglueck  
Earth and Atmospheric Sciences  
Atmospheric Mercury Analysis at University of Houston

**Sonya Ortiz**

Mentored by Kelly Huang and Heet Joshi  
Mechanical and Aerospace Engineering  
Development of a Highly Sensitive, Fast-Response Surface Plasmon-Based Humidity Sensor

**Fejiro Oweh**

Mentored by Ghenni Platenburg and Marwa Ghazali  
Communication; Comparative Cultural Studies  
Perceptions: A Qualitative Study on Marvel's Black Panther Influence on Pan-African Identity Among 2nd Generation Nigerian Americans & Black Americans

**Aisosa Ozo-Ogbeide**

Mentored by Natalie Toro  
Student National Medical Association

Utilizing a Multidisciplinary Approach to Assess the Impact of Maternal Mental Health on Neonatal Health Outcomes in Sierra Leone

**Nirali Patel**

Mentored by Tracey Ledoux  
Health and Human Performance  
Examining the Impact of Self-Compassion on Intuitive Eating and Weight Status

**Alexa Perez**

Mentored by Daniel Engster  
Public Affairs  
Reimagining Welfare: Addressing LGBTQ Needs in Texas Policy

**Zuhal Polat**

Mentored by Clayton Neighbors and Andrew Weinstein  
Psychology  
Academic Stress and Drinking to Cope: The Indirect Role of Depression in College Students

**Asaunte Powell**

Mentored by Ben King  
Health Systems and Population Health Sciences  
2023 Harris County Homelessness Mortality Report

**Sayantan Pradhan**

Mentored by Mehmet Şen  
Biology and Biochemistry  
Structural Significance of Von Willebrand Factor in Mediating Thrombosis and Inflammation

**Sudharshini Prasanna**

Mentored by Heather Dial and Lynn Maher  
Communication Sciences and Disorders  
Strengthening Connections: The Impact of Semantic Association Strength on Treatment Response During CILT

**Cameron Ptak**

Mentored by Quentin Vicens  
Biology and Biochemistry  
Monitoring RNA AGG-Quadruplexes in BMI-1 mRNA

**Raayed Rahman**

Mentored by Chandra Mohan  
Biomedical Engineering  
Point-of-Care Vertical Flow Assay Testing Using Saliva in Lupus Patients

**Gonzalo Ramirez Pulido**

Mentored by Summer Chavez  
Integrated Health Systems Sciences  
Bridging the Gap: The Role of Hospital Violence Intervention Programs in Level 1 Trauma Centers

**Toni Ramos**

Mentored by Brandee Carlson and Lucille Baker-Stahl  
Earth and Atmospheric Sciences  
Assessing Vertical Stratification of Salinity to Understand Sediment Transport With Mathematical Approaches in the Arctic Circle

**Ritesh Ravi**

Mentored by Andrew Kapral  
Honors, Engaged Data Science  
Identifying Carcinogenic Vapor Intrusion Risk in Harris County

**Patrick Redmond**

Mentored by Siavash Zamiran  
Civil and Environmental Engineering  
Seismic Hazard Investigation of LNG Export Facilities in the USA

**Saron Regassa**

Mentored by Haylee Harrell  
English  
Caricatures, Reflections, and Tokens: The Currency and Foundation of the Digital Public

**Dylan Rogers**

Mentored by Amanda Baumle  
Sociology  
The Other Side of the Coin: A Thematic Analysis of Men's Experience With Evangelical Purity Culture

**Jacqueline Rudisill**

Mentored by Julia Babcock  
Psychology  
The Role of Dominance as a Moderator Between Personality Disorders and Intimate Partner Violence: A Study on BPD and ASPD



**Faiza Sachwani**

Mentored by Michael Zvolensky  
Psychology

Examining the Effects of Biological Sex and Pain Interference on PTSD Symptom Severity

**Celine Saidy**

Mentored by Steven Pennings  
Biology and Biochemistry

Global Change Affects Height of Salt Marsh Grasses

**Rohaba Sajjad**

Mentored by Mostafa Momen  
Civil and Environmental Engineering

Predictive Modeling of Weather Trends

**Darrell Salako**

Mentored by Donna L. Pattison and Ezenwa C. Onyema  
Biology and Biochemistry; McGovern Medical School, Geriatric and Palliative Medicine

Assessing Impact of Gabapentin in Combination With High-Risk Medication on Delirium Rates and Hospital Length of Stay Among Geriatric Trauma Patients

**Adolfo Salazar**

Mentored by Lesli Vollrath  
Honors, English

Narrative Healing: Testimonio As Desahogo in Elizabeth Farfán-Santos' Undocumented Motherhood

**Adolfo Salazar**

Mentored by Greg Morrison  
Physics

In Silico Investigation of Chromosome Structure in Densely Packed Conditions

**Kiana Samiei**

Mentored by Clayton Neighbors and Nicole Hall  
Psychology

Prospective Associations Between Alcohol Use in Adolescence and Mental Health Diagnoses in Adulthood

**Santiago Sanchez Cabarcas**

Mentored by Carla Sharp  
Psychology

Perceived Discrimination, Adult Attachment, and Mental Health Symptoms in Formerly Incarcerated Women

**Brittany Sandoval**

Mentored by Haylee Harrell  
English

Our Beloved Swarm: Confronting Black Women's Mental Health Stigma Through the Lens of Horror

**Caroline Sarver**

Mentored by Rosenda Murillo  
Psychological, Health, and Learning Sciences

Child-Experienced Discrimination Is Associated With Higher Anxiety and Depression in Latino Parents

**Vir Sehgal**

Mentored by Kimberly Meier  
Vision Sciences

Comparing OCT vs. Eye-Trackers for Quantifying Eye Fixation Stability

**Aashna Shah**

Mentored by Carla Sharp and Kenedy Balzen  
Psychology

Examining the Association Between Racial Identity and Suicidal Ideation Among Black Youth

**Sanidh Shah**

Mentored by Kirill Larin  
Biomedical Engineering

Assessing Morphological Effects of Prenatal Cannabinoid Consumption on Murine Embryos With Optical Coherence Tomography

**Shimonee Shah**

Mentored by Krishna M. Boini  
Pharmacological and Pharmaceutical Sciences

Role of Thioredoxin Interacting Protein in Nicotine-Induced Inflammasome Activation and Podocyte Injury

**Eric Shin**

Mentored by Caryn Tamber-Rosenau  
Comparative Cultural Studies

Understanding the Talmud in a Korean and Korean-American Context

**Abdullah Shittu**

Mentored by Christine Ehlig-Economides  
Petroleum Engineering

Houston Hydrogen Transportation Pilot

**Navya Shivam**

Mentored by Nathan Grant Smith and Jacob Crocker  
Psychological, Health, and Learning Sciences

Exploring the Temporal Links Between Minority Stress, Allostatic Load, and Substance Use: A Systematic Review of the Literature

**Maria Siddeeque**

Mentored by Ben King  
Health Systems and Population Health Sciences

Qualitative Study of Opportunities for Prevention of Overdoses Associated With Homelessness

**Amna Siddiqui**

Mentored by Bhavya Tiwari  
Modern and Classical Languages  
Ishrat Afreen's Voice in South Asian Poetic Tradition

**Diego Sierra**

Mentored by Raul Susmel  
Finance

Regression Analysis of the Effects of Socio-Political Factors on Financial Indicators in Emerging Economic Markets

**Yasmin Soltani**

Mentored by Andrew Kapral  
Honors, Engaged Data Science

Language Acquisition for Refugee Students in Texas Public Schools

**Samson Stern**

Mentored by Karen McIntush  
Mathematics

Changing Careers, Changing Classrooms: How CCSTs Are Reshaping Classrooms With teachHOUSTON

**Annfaye Sternberg**

Mentored by Abigail Modaff  
Honors, History

The Ladies' Pioneer Society: Patterns of Thinking in One of the Oldest Women's Literary Clubs in the United States

**Alyssa Stewart**

Mentored by Hanako Yoshida and Elizabeth Perkovich  
Psychology

Comparing Autism and Typically Developing Groups on Parent Speech as a Function of Joint Attention

**Nathan Stiehl**

Mentored by Marc Hanke and Marilyn Albert  
Honors, Biology; Johns Hopkins School of Medicine, Neurology

Walking Speed and Brain Connectivity in Older Adults

**Yahaira Suchil**

Mentored by Ben King and Omolola E. Adepoju  
Health Systems and Population Health Sciences; Integrated Health Systems Sciences

Health Harming Legal Needs and Their Relationship With Mentally Unhealthy Days in Participants Screened for a Medical Legal Partnership

**Neeraj Suresh**

Mentored by Arne Lekven  
Biology and Biochemistry

Using "Recombineering" Technology to Modify a wnt1/wnt1ob Genomic PAC Clone

**Angelique Tagaban**

Mentored by Virginia Snodgrass Rangel  
Educational Leadership and Policy Studies

The Perceptions of Teaching Among Natural Science and Mathematics Majors

**Brandon Than**

Mentored by Preethi Gunaratne and Shiyanth Thevasagayampillai  
Biology and Biochemistry

Integrating WES and Total RNA-Seq to Identify Gene Fusions in 11q13, in Development of a Personalized Peptide Vaccine for Breast Cancer

**Tiffani Than**

Mentored by Daniela Peláez-Palacio and Alvaro Rojas-Peña  
University of Michigan Medical School, Surgery

Supporting Extremely Premature Infants Using an Artificial Placenta System: A Premature Ovine Model

**Cory Thomas**

Mentored by Tshepo Masango Chéry  
History

Contextualizing the Rwandan Genocide

**Kareli Tobias**

Mentored by Daphne Hernandez  
Health and Human Performance

Modifications Based on Cognitive Interviews to the Spanish-Language Four Domain Food Insecurity Scale (4D-FIS)

**Emme Tomasello**

Mentored by Debarati Sen  
Comparative Cultural Studies

Killing Art, Killing History: Evaluating Responses to Far-Right Vandalism

**David Torres Jr.**

Mentored by Jaewook Kim  
Global Hospitality Leadership

The Intersection Between Modern Technology and Small Business Growth

**Cynthia Tran**

Mentored by Tai-Yen Chen  
Chemistry

Investigating the Role of Copper During Neural Development

**Melody Tran**

Mentored by Xiaodong Cheng  
MD Anderson Cancer Center, Epigenetics and Molecular Carcinogenesis

Binding of BCL11A Zinc Fingers to DNA Motifs in the  $\beta$ -Globin Locus

**Jennifer Trejo**

Mentored by Clayton Neighbors and Andrew Weinstein  
Psychology

Exercise Motives, Body Image Anxieties, Alcohol Consumption as Predictors of Physical Activity

**Andrea Tribble**

Mentored by Ameenah Shakir  
African American Studies

Unveiling Legacy: Black Women's Leadership in the Black Campus Movement

**Aanshi Trivedi**

Mentored by Melissa Zastrow and Gary Jensen  
Chemistry

Increasing Zinc Affinity in tr-All128og2 as a Fluorescent Metal Ion Sensor

**Ben Jose Tuason**

Mentored by Rakesh Verma  
Computer Science

2-D Binary Classifier for Linearly Separable Points Through Geometric Line Stabbing

**Morgan Turner**

Mentored by Andrew Kapral  
Honors, Engaged Data Science

Towards Environmental Equity: Investigating Socioeconomic Disparities in Access to Recycling Services

**Lizette Villanueva**

Mentored by David Qian  
MD Anderson Cancer Center, Thoracic Radiation Oncology

Proton vs. Photon Chemoradiation for Locally Advanced NSCLC: Comparing Dose to Immune Cells and Organs-at-Risk

**Daniel Viray**

Mentored by Vaughn Climenhaga  
Mathematics

Topological Entropy of a Sinai Billiard as a Function of Scatterer Radii

**Elaine Vo**

Mentored by Andrew Kapral  
Honors, Engaged Data Science

Investigating the Relationship Between Texas School District Healthcare Expenditures and Academic Outcomes

**Eshal Warsi**

Mentored by Erin Routon  
Comparative Cultural Studies

Just Enough Pain: Central American Asylum Seekers With Gang-Based Persecution Claims



**Robin Westveer**

Mentored by William Ott  
Mathematics

Perturbed Degrade-and-Fire  
Oscillations via Bernoulli Distributed  
Delay

**David Whaley**

Mentored by Mahdi Safa  
Civil and Environmental Engineering

Reduction of Carbon Emissions  
Generated by LNG Storage

**Courtney White**

Mentored by William Ott and Amanda  
Alexander  
Mathematics

Noisy Delay Stabilizes Bistable  
Genetic Network

**Cassidy Wood**

Mentored by Richard Meisel  
Biology and Biochemistry  
A Comparative Analysis and  
Annotation of Anti-Microbial Peptide  
Genes Across Fly Species

**Andrew Wusterhausen**

Mentored by Loi Do  
Chemistry

Developing Cation-Tunable  
Phenoxyimine-Ni Complexes for  
Polymerization of Ethylene

**Alexandros Xenophontos**

Mentored by Tasneem Bawa-Khalfe and  
Anthony S. Peidl  
Biology and Biochemistry

Investigating SUMO-Interacting  
Motifs of Hsp27 and Their Effect on  
Protein Binding

**Emily Yeh**

Mentored by Yoon Koh  
Global Hospitality Leadership

Corporate Social Responsibility in  
Cruise Companies: A Comparison of  
North America, Europe, and Asia

**Noah Yi**

Mentored by Sunny Yang  
English

The Racialization of COVID-19 With  
Asian Bodies: How Newspapers  
Discussed the Topic in 2020

**Fartun Yussuf**

Mentored by Chrysa Latrick and Quentin  
Vicens

Biology and Biochemistry

Solubility of HIV1 Integrase and  
Interaction With LEDGEF

**Yousef Zamil**

Mentored by Eugénie Bassères and Kevin  
W. Garey

Pharmacy Practice and Translational  
Research

Using *C. elegans* to Observe the Gut  
Microbiome Response to Antibiotics  
in the Context of *C. difficile*

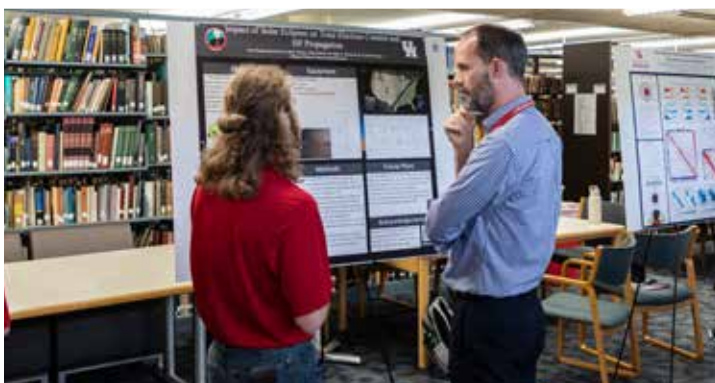
**Kassandra Zapata**

Mentored by Gabriela Baeza Ventura and  
Carolina Villarroel  
Hispanic Studies; Arte Público Press

Integrating Primary Sources Into K-12  
Classrooms









## GROUP PRESENTATIONS

### **Chris Edward Ablola, Oluwadurotim Agbesanwa, Abdallah Ghoneim, and Darion Truong**

Mentored by Lu Wang  
Biomedical Engineering

Stroke Risk Stratification and Prevention Using Machine Learning and Explainable AI

### **Yamilet Abreu, Josh Gamez, Yackeline Galvan, and Lesley Lopez**

Mentored by Nirathi Keerthi Govindu  
Industrial and Systems Engineering

Computerized Maintenance Management Software Adoption Evaluation

### **Nikhila Achanta, Netra Nagoor, Angela Vu, and Eunice Yi**

Mentored by Andrew Kapral  
Honors, Engaged Data Science

Affordable Housing and Healthcare: Examining LIHTC, TIRZs, and Primary Care Access in Harris County

### **Srivarshini Achanta, Patrick Day, and Ammar Irshad**

Mentored by Craig Johnston and David Walsh

Health and Human Performance

The Effects of Offset Loading Training Stimulus on Neural Functionality and Body Composition

### **Srivarshini Achanta, Kerry Dinh, Sierra Osborne, and Christina Suarez**

Mentored by Daniel Price and Andrew Kapral  
Honors, Data and Society

Understanding the Link to Food Insecurity in Houston: Mapping Food Access, SNAP Utilization, and Obesity Rates

### **Gail Aflalo, Dylan Magee, Olivia Ong, and Syed Rizvi**

Mentored by Jokubas Ziburkus  
Biology and Biochemistry

Multi-Sensory Cartography of Natural Stimuli

### **Faiyaz Ahmad, Cobe Haddock, and Jordan Ortega**

Mentored by Nirathi Keerthi Govindu and Nathaniel Wiggins

Industrial and Systems Engineering

Systems Integration and Performance

Validation of Haptic Feedback in Robotic Applications

### **Ifrah Ahmad and Ashlie Mai**

Mentored by Johanna Bick  
Psychology

Differential Impacts of Perinatal and Socioeconomic Risk on Executive Function and Socioemotional Processing in Early Childhood

### **Nawar Ahmed, Joey Hernandez, Sharlet Mathew, and Andy Tran**

Mentored by Daniel Price and Andrew Kapral

Honors, Data and Society

“Co-creating” Operation Fusion: A Collaborative Approach to Bridging Health and Culture for Immigrant & Refugee Youth

### **Suhaib Ahmed, Huy Pham, Hafida Elhammoumi, and Taha Saad**

Mentored by Yaping Wang  
Industrial and Systems Engineering

Optimizing Tool Management for Efficiency

### **Anoop Akula, Mustufa Khan, Syed Rizvi, and Sweyba Sherif**

Mentored by Jokubas Ziburkus  
Biology and Biochemistry

Enhancing Student Learning Outcomes Through Multi-Sensory Mapping

### **Siani Alanis and Yadira Hermosillo**

Mentored by Gabriela Baeza Ventura and Carolina Villarreal

Hispanic Studies; Arte Público Press

Recovering Latino/a Life After Death Through the Morales Funeral Home Collection

### **Arisha Ali and Adam Alubaidi**

Mentored by Martin A. Nuñez  
Biology and Biochemistry

How Global Is Ecology?

### **Sana Aljandali, Vincent Marmolejo, and Jordyn Sibert**

Mentored by Nirathi Keerthi Govindu  
Industrial and Systems Engineering

Automated Workflow Using AI Methods for Compiling Environmental Legal Documentation

### **Mona Almufti, Olivia Garza, Phung Huynh, and Jesus Zendejas**

Mentored by Yaping Wang  
Industrial and Systems Engineering

Room Turnaround Time Reduction

### **Alice Argueta, Mariela Benavides, Alexis Chavez, Mayra Delacruz, Tyree Jones, and Natalie Silva**

Mentored by Laura Lee  
Personal Early Educational Performance Support

Social Media's Role on the College Experience

### **Mahum Baloch, Alexander Lopez, Ritesh Ravi, Amsha Rehan, Lilly Lakshmalla, and Nursemin Ugur**

Mentored by Daniel Price and Andrew Kapral  
Honors, Data and Society

The Baseline Resilience Indicators for Communities (BRICS) for Harris County

### **Ayesha Baloch and Ngoc-Trang Adrienne Nguyen**

Mentored by Janet Lawler  
Honors, Political Science

Evaluating SAT Score Gains in Aspire Students: Does Pre-/Post-test Format Matter?

### **Xiomara Barahona, Sam Sarceno, and Kinza Wahid**

Mentored by Robin Proctor  
Psychological, Health, and Learning Sciences

Sleep and Academic Performance Among STEM vs Non-Major STEM Students at UH

**Andrea Barrios,  
Sofia Bustamante,  
Khoá Nguyen,  
and Cristina Orrego**

Mentored by Nirathi Keerthi Govindu  
Industrial and Systems Engineering

Optimizing the Receiving Inspection  
Process to Reduce Backlogs

**Afzila Bhojani, Tayann Cobo,  
Emily Faridi,  
and Ana Frausto-Leija**

Mentored by Janet Lawler  
Honors, Political Science

From AmplifyHER to AmplifyALL:  
Boys in an All-Girls Program and Its  
Effects

**Lena Boben, Loyed Siby,  
Elyse Tran, and Kaylyn Verdun**

Mentored by Daniel Price and Andrew  
Kapral  
Honors, Data and Society

Potential Correlation of Industrial  
Site Presence in Low-Income  
Communities Increasing Disease  
Prevalence During Hurricane Harvey

**Karina Borja, Lia Gabbanelli,  
Akosua Karikari,  
and Rosemarie Faustina Le**

Mentored by Daniel Price  
Honors, Data and Society

Houston's Current Resourcing  
Landscape From the Perspective of  
Local Community Health Workers

**Lilian Bui, Tammy Dang,  
Kien Nguyen,  
and Nguyen Nguyen**

Mentored by Christina Miyawaki  
Social Work

The Correlation Between Household  
Composition and MoCA Scores in the  
Vietnamese Older Adult Population

**Kadilo Buzugbe  
and Tarashree Dorairaj**

Mentored by David Mazella  
English

The Intricacies of Genre

**Klarissa Castillo,  
Brian Holcomb, Iris Lucio,  
Jackie Nguyen,  
and Sophie Nguyen**

Mentored by Nancy Beck Young and  
Sandra Davidson

History

Sharing Stories From 1977: S.T.O.P  
the Equal Rights Amendment ('Stop  
Taking Our Privileges')

**Kaylee Chang  
and Abia Kaleemullah**

Mentored by Candice Alfano  
Psychology

The Impact of Screen Brightness and  
Media Content on Children's Sleep  
Duration

**Jeffrey Cheng, Mattheus Melo,  
Joanne Muller, Vincent Nguyen,  
and Jorge Rosales**

Mentored by Yaping Wang  
Industrial and Systems Engineering

Organizational Improvement of  
Storage Area

**Caleb Chiao, Cynthia Tran,  
and Elaine Vo**

Mentored by Marc Hanke  
Honors, Biology

Understanding Mutation Rates Under  
Microgravity Conditions

**Paul Daniel, Saeed Khan,  
and Ferhad Mongal**

Mentored by Wa Xian and Frank McKeon  
Biology and Biochemistry

Clonal Analysis of Pancreatic Cancer  
Stem Cells for Therapeutic Advances

**Paul Daniel, Saeed Khan,  
and Ferhad Mongal**

Mentored by Wa Xian and Frank McKeon  
Biology and Biochemistry

Characterizing Classical Pancreatic  
Cancer Stem Cells in Ascitic Fluid  
Through Cloning

**Paul Daniel and Nathan Stiehl**

Mentored by Ben Rayder and Paul Nemer  
Office of Undergraduate Research  
and Major Awards; Baylor College of  
Medicine

Analyzing the Benefits and Risks of  
Telehealth in Adolescent Psychiatry

**Alexandra Deras Diaz  
and Izel Moreno**

Mentored by Rosenda Murillo  
Psychological, Health, and Learning  
Sciences

Latinos That Receive Physical Activity  
Counseling Are More Likely to  
Engage in Aerobic Physical Activity

**Jasmine Dhaliwal,  
Lauren DiPaola,  
Abigail Pomeroy,  
and Swetha Saravanan**

Mentored by Lu Wang  
Biomedical Engineering

Hypoxia-Identifying Explainable  
AI for Risk Tracking in Fetal  
Cardiotocography (HEART-FC)

**Cuong Duong, Nancy Le,  
Hien Nguyen, Mandy Nguyen,  
and Vianne Nguyen**

Mentored by Christina Miyawaki  
Social Work

Correlational Study Between  
"Attention" and "Delayed Recall"  
Sections of MoCA Test Across Age,  
Gender, and Education

**Kareem El-Giar,  
Angela Doncsev,  
and Salma Gaballa**

Mentored by Marc Hanke  
Honors, Biology

Microgravity Impacts on IL-2 Cytokine  
Production

**Yousef Elmakdah  
and Hasan Siddiqui**

Mentored by Mehmet Şen  
Biology and Biochemistry

Conformational Dynamics of ICAM-  
1: Exploring the Role of G241R  
and K469E Mutations in Disease  
Pathogenesis

**Spencer Ennadi-Johnson  
and Edward Nguyen**

Mentored by Omprakash Gnawali  
Computer Science

Neural Network-Based Location  
Determination via Digital TV Signal  
Characteristics and Data Quality



**Olivia Farmer  
and Duong Nguyen**

Mentored by Nicolas Jacobsen  
Honors, Energy and Sustainability  
Energy Feasibility Studies in the  
Democratic Republic of Congo

**Julianna Hamilton, Yusuf Islam,  
Sina Jafari, Alex Le,  
Alexander Mai,  
Jyothylakshmi Manoj,  
Komathi Sivakumar, and  
Melanie Valencia**

Mentored by Bradley H. Smith and Janet  
Lawler  
Psychological, Health, and Learning  
Sciences; Honors, Political Science  
Evaluating Self-Efficacy, Expectation  
of Future Success, and Skill  
Perception in the Writing to Inspire  
Successful Education (WISE)  
Mentorship Program

**Morgan Harper, Kailey Jirsa,  
Vivian Spoede,  
and Nathan Stiehl**

Mentored by Bradley H. Smith and Janet  
Lawler  
Psychological, Health, and Learning  
Sciences; Honors, Political Science  
The Food Insecurity Team (FIT) at  
UH: Evaluating Efficacy and Future  
Expansion

**Cristina Hernandez Diaz and  
Jesus Villalobos**

Mentored by Brigitte Dauwalder  
Biology and Biochemistry  
Effects of Ecdysone Receptor Isoform  
A1 on Courtship Behaviour in  
*Drosophila melanogaster*

**Chemeziem Iwuji, Joyce Joy,  
Jyothylakshmi Manoj,  
Laura Miranda-Vargas,  
John Richards, and Jean Yoo**

Mentored by Andrew Kapral and Daniel  
Price  
Honors, Data and Society  
Assessing Access to Essential  
Community Resources via METRO  
Buses and Walking in Houston

**Faria Javed and Elyse Tran**

Mentored by Janet Lawler  
Honors, Political Science  
Identifying and Analyzing Services  
Provided by Women's Shelters in  
Harris County

**Saarangi Kaimal, Tran Lam,  
and Soraya Sato**

Mentored by Janet Lawler and Bradley H.  
Smith  
Honors, Political Science; Psychological,  
Health, and Learning Sciences  
Boosting Mentor and Mentee Self-  
Efficacy Through Science Mentorship  
in the Science Mentoring to Achieve  
a Richer Tomorrow (SMART) Program

**Ryan Lester, Mia Lukenbill,  
and Sally Nguyen**

Mentored by Quinn Valier and Cori Grant  
UH Population Health; Sociology  
Urban Heat and Human Health:  
Impacts, Adaptation, and Equity in  
the United States

**Victor Luong, Maria Ocampos,  
Talha Moji,**

**and Katalin Stubits-Gallagher**  
Mentored by Yaping Wang  
Industrial and Systems Engineering  
Facility Exterior Layout Re-Design

**Bereket Mego, Paria Mosaffa,  
and Seth Smith**

Mentored by Sergey Shevkoplyas  
Biomedical Engineering  
Modeling Downstream Effects  
of Medium-Chain Acyl-CoA  
Dehydrogenase Deficiency on  
Fatty Acid  $\beta$ -Oxidation and the  
Tricarboxylic Acid Cycle

**Brent Milton and Noelle Ramos**

Mentored by Erin Kelleher and Lorrise  
Saiz  
Biology and Biochemistry  
Let's Talk About Bruno: Uncovering  
Genetic Differences Responsible  
for Variation in Dysgenic Sterility in  
*Drosophila melanogaster*

**Angela Nguyen  
and Haley Romine**

Mentored by Chandra Mohan  
Biomedical Engineering  
Bowman's Capsule Rupture and  
Podocyte Loss As Revealed by  
Spatial Proteomics Is Correlated to  
Histological Activity and Chronicity in  
Lupus Nephritis

**Lily Nguyen  
and Guillermo Vasquez**

Mentored by Yi-Chao Chen  
Mechanical and Aerospace Engineering  
Can MATLAB Plot the Human  
Diaphragm?

**Lizbeth Perez and Grace Pullin**

Mentored by Candice Alfano  
Psychology  
Melatonin Use Among Children in  
Foster Care

**Ayaan Saleem  
and Nour Shehata**

Mentored by Craig Johnston and Jessica  
M. Kirschmann  
Health and Human Performance  
Transforming Health Outcomes for  
Special Olympic Athletes: A Family-  
Centered Approach

**Arushi Suji and Yumn Qazi**

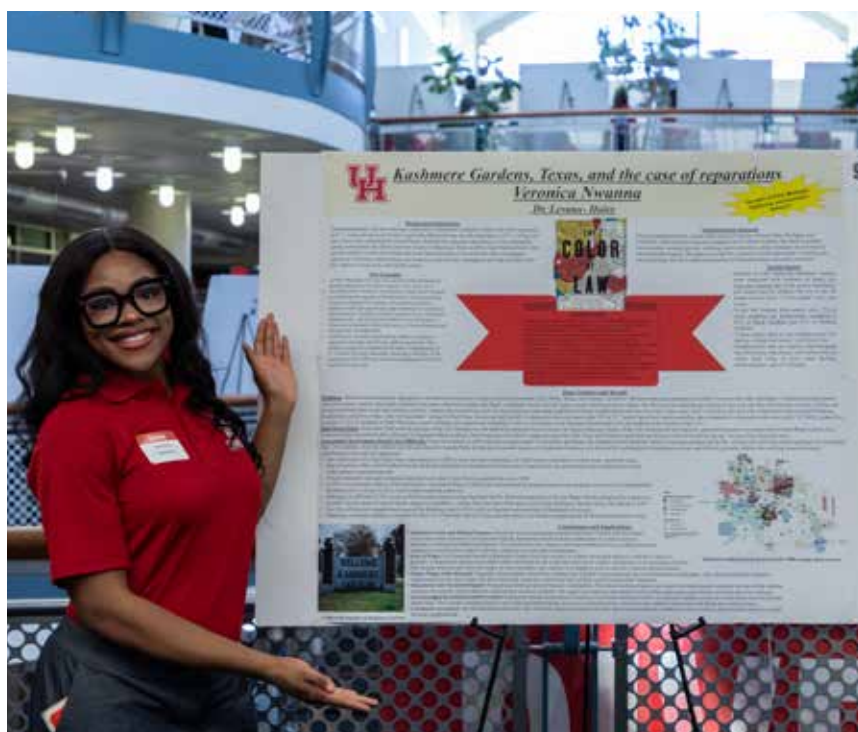
Mentored by C. Raymond Knee  
Psychology  
Personality, Materialism, and the  
Parent-Child Relationship: A Study of  
Alignment and Impact

**Anna-Maria Trabulsi,  
Ali Qureshi, and Iman Yousaf**

Mentored by Craig Johnston  
Health and Human Performance  
Bridging the Gap: How Healthy  
Recipes Can Improve Nutrition in  
Houston's Third Ward

**Charis Wu and Arshiya Yasin**

Mentored by Melody Yunzi Li and  
Guadalupe San Miguel, Jr.  
Modern and Classical Languages; History  
Mapping Houston's Old Chinatown







## VIEW THE UNDERGRADUATE RESEARCH DAY DIGITAL ARCHIVES

<http://www.uh.edu/urd-collection>

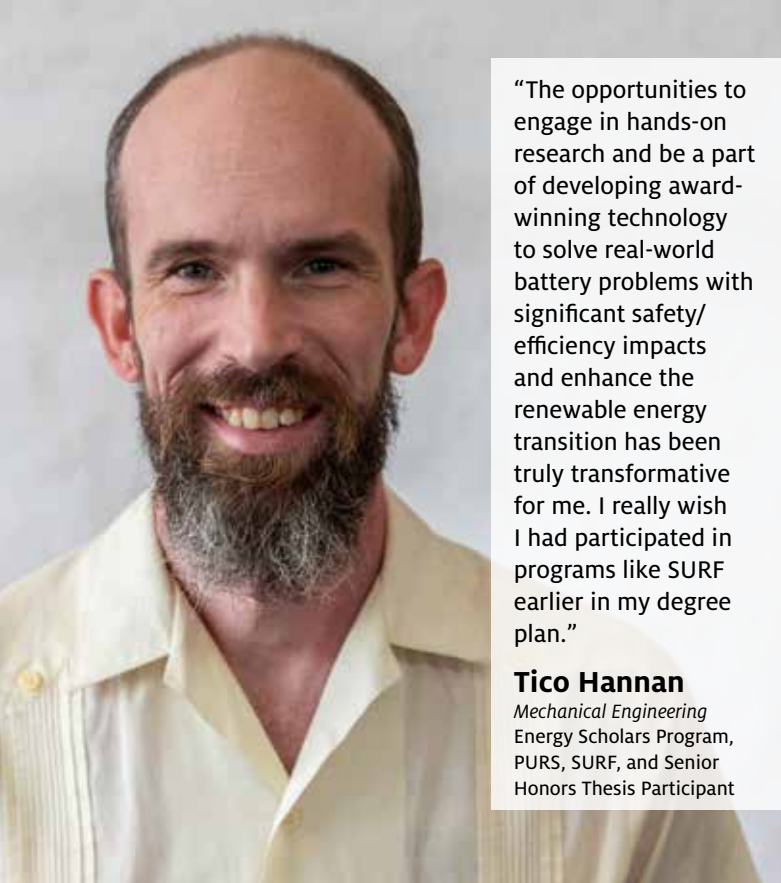


## SPECIAL THANKS TO...

The Office of Undergraduate Research and Major Awards in the Honors College extends a special thanks to our campus and community partners for their support of OURMA programs and our undergraduate researchers.

- Office of the Provost
- Division of Research
- College of Liberal Arts and Social Sciences
- Cullen College of Engineering
- Energy Transition Institute
- Cougar Initiative to Engage
- Gerald D. Hines College of Architecture and Design
- Mellon Foundation
- The Writing Center
- UH Libraries
- The University of Texas MD Anderson Cancer Center
- Data Analytics in Student Hands (DASH) and Honors in Community Health (HICH)
- Institute for Global Engagement
- University Career Services

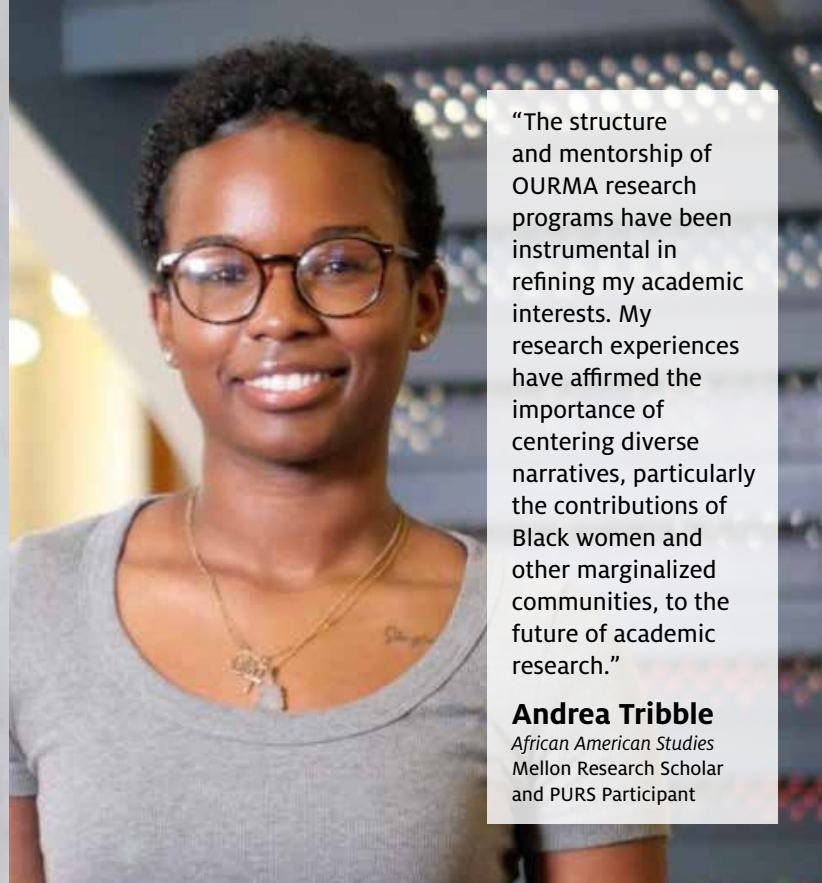




“The opportunities to engage in hands-on research and be a part of developing award-winning technology to solve real-world battery problems with significant safety/efficiency impacts and enhance the renewable energy transition has been truly transformative for me. I really wish I had participated in programs like SURF earlier in my degree plan.”

**Tico Hannan**

*Mechanical Engineering  
Energy Scholars Program,  
PURS, SURF, and Senior  
Honors Thesis Participant*



“The structure and mentorship of OURMA research programs have been instrumental in refining my academic interests. My research experiences have affirmed the importance of centering diverse narratives, particularly the contributions of Black women and other marginalized communities, to the future of academic research.”

**Andrea Tribble**

*African American Studies  
Mellon Research Scholar  
and PURS Participant*

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**Jonathan Gaucin**

*Electrical Engineering  
HERE Participant*



“My experience with SURF has given me a preview of the rigor and dedication required to conduct and execute research in graduate school. I highly recommend this opportunity to all undergraduate students who are curious about pursuing a higher degree or beginning a career in research and development. It has been incredibly fulfilling and instills strong foundations for a pioneering scientist.”

**Toni Ramos**

*Environmental Science  
SURF Participant*



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