



12TH ANNUAL



GRAD  
SLAM

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FINALS

MARCH 11, 2026

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**CONFERENCE CENTER -  
DR. VIKRAM AND PRIYA LAKIREDDY GRAND BALLROOM**

**COMPETITION BEGINS AT 3:00PM**



## HARLEEN KAUR

Sixth Year | Chemistry and Biochemistry

Harleen designs and synthesizes sustainable catalysts using Earth-abundant metals. Her research transforms small molecules, including captured carbon dioxide, into valuable products, relevant to pharmaceuticals, agrochemicals and materials.

 **A FUN FACT ABOUT HARLEEN:**  
She spends her days proving the world doesn't need precious metals, gold; however, she wins every time in her personal life.



## EMMANUEL RABAGO MORENO

First Year | Mechanical Engineering

Emmanuel's research focuses on improving the durability of solar panels used in agricultural environments. He studies how dust abrasion and cleaning processes affect solar panel glass performance, with the goal of helping these systems remain efficient and reliable over time.

 **A FUN FACT ABOUT EMMANUEL:**  
Emmanuel enjoys playing golf and is always working on improving his swing.



## ZACHARY MALONE

Sixth Year | Environmental Systems

Zach's researches how organical materials, once turned into compost, can be used to improve soil health. His focus is on compost applied to city soils, and how this compost can impact soil carbon cycling and climate change mitigation in urban areas.

 **A FUN FACT ABOUT ZACH:**  
Zach loves trivia! Most Wednesdays you can find him at The Partisan bar trivia competition.



## ZOE LOH

Fifth Year | Management of Complex Systems

Zoe's research investigates how visual attention and cognitive workload (mental effort) impact human performance. She studies how increased workload can impact response accuracy and self-assessments of performance for tasks that require sustained monitoring. Her research informs designing systems and trainings that can help prevent human errors where sustained attention is critical, such as driving or air traffic control.

 **A FUN FACT ABOUT ZOE:**  
She's allergic to kiwi!



## ALEX HARTZLER

Third Year | Mechanical Engineering

Alex studies how greases designed for combustion engines perform under electrified conditions similar to those in EVs. By understanding their behavior, we can develop better lubricants to extend EV longevity and contribute to cleaner air in the Central Valley and beyond.

 **A FUN FACT ABOUT ALEX:**  
Alex is the second youngest of nine siblings and the first in his family to attend college.



## **TAHIRAH WILLIAMS**

Fourth Year | Quantitative and Systems Biology

Tahirah's research focuses on understanding how *Coccidioides*, the fungal pathogen that causes Valley fever (coccidioidomycosis), interacts with mucins, key components of the mucosal immune system in the lungs. Valley fever is a respiratory infection acquired by inhaling fungal spores found in soil in dry and semi-dry regions such as the U.S. Southwest, California's Central Valley, and parts of Central and South America. By examining molecular changes that occur during early host-pathogen interactions, her work aims to uncover how the fungus adapts and survives within the host, providing insights that may support the development of improved diagnostics and future therapeutic strategies.



### **A FUN FACT ABOUT TAHIRAH:**

Tahirah used to be terrified of heights, so she convinced a friend who was also afraid of heights to go skydiving from 13,000 feet in San Diego.



## **SARAH MALONE**

Sixth Year | Applied Mathematics

Sarah studies the fluid dynamics of pulsing soft corals to understand how their motion drives transport in the surrounding water. By combining computational modeling with data-driven methods, she builds surrogate models that reveal which biological and physical parameters enhance fluid flow.



### **A FUN FACT ABOUT SARAH:**

Sarah wants to visit every national park in her lifetime — so far she has been to 10 out of 63.



## **ANDREW SILVERSTEIN**

Second Year | Environmental Systems

Andrew's research focuses on water scarcity solutions in the Central Valley of California by studying how agrivoltaics can reduce water waste on farms. Studying crop impacts from this practice and how to take advantage of them with proper crop selection. Developing drone imagery practices to view and track crops under a solar array.



### **A FUN FACT ABOUT ANDREW:**

Last year, Andrew hiked to the summit of the tallest peak in the contiguous United States, Mt. Whitney.



## **ZAHRA ALITANEH**

Fourth Year | Quantitative and Systems Biology

Zahra is a researcher developing targeted approaches to treat serious fungal infections. She engineers a protein called Griffithsin, which is a lectin, as a delivery system to help antifungal peptides reach fungal cells more effectively. Her research focuses on improving treatments for infections caused by *Candida albicans*, which can be life-threatening for immunocompromised patients.



### **A FUN FACT ABOUT ZAHRA:**

Zahra believes a good cup of tea can fix almost anything.



## **ALBERTO ALVES**

First Year | Mechanical Engineering

Alberto's research focuses on tribology, the study of friction, wear, and lubrication. His current work involves prolonging the operational life of materials used as solid lubricants for space applications through benchmark testing. This work has the potential to improve spacecraft performance.



### **A FUN FACT ABOUT ALBERTO:**

Alberto has been running for over a decade and is training to qualify for the Boston Marathon!

# SPECIAL THANKS TO OUR JUDGES

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## **MANAR AHMED**

### **Undergraduate Student & ASUCM President**

Manar Ahmed is an undergraduate at UC Merced and serves as President of the Associated Students of UC Merced (ASUCM). In that role, she represents the undergraduate student body and works with leadership across campus. Her experience in evaluating for clarity, audience connection, and real-world relevance will be invaluable for judging the Grad Slam talks.

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## **DONALD BARCLAY**

### **Librarian Emeritus**

Donald Barclay spent 20 years at UC Merced and retired in 2022 after serving as Deputy University Librarian and more than 30 years in academic libraries. Librarianship is fundamentally about making complex information understandable and trustworthy: exactly the skills we look for in Grad Slam presentations.

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## **PRIYA LAKIREDDY**

### **Community Member**

Priya Lakireddy is a Merced community leader and serves on the Merced City School District Board of Education. She was elected MCSD board president in December 2024. She has a longstanding connection to UC Merced as both a campus leader and a major benefactor. Her expertise in weighing evidence, asking sharp questions, and communicating decisions clearly to the public will be a valuable lens for assessing the Grad Slam talks.

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## **JIM SILVA**

### **Associate Editor, Modesto Bee and Merced Sun-Star**

Jim Silva is associate editor with the Modesto Bee and Merced Sun-Star, where he has covered local sports and news since 1996. He holds a journalism degree from San José State University. His work centers on clear storytelling for broad audiences, and we look forward to his evaluation of what makes a Grad Slam talk compelling.