

Intersections: Undergraduate Research Presentation Award Winners
Spring 2025 Intersections

Arts and Humanities

1st Roman Valine. *Everyday Inclusion: Diversity in Children's Picture Books Beyond Tales of Discrimination*. Faculty Mentor: Cara Byrne, Department of English

1st Liv Carle. *Creating from Cognitive Science: Playwriting with Principles of Surprise Cognition*. Faculty Mentor: Vera Tobin, Department of Cognitive Science

Computer Science

1st Kani Ahmed, Ved Arora, Teddy Bryant, Montgomarie Essex, Zachary Greenberg, Daniel Kelly, Joseph Rhodes, and Dominic Sais. *ClosetAI: An Outfit Recommendation iOS App*. Faculty Mentor: Shuai Xu, Department of Computer and Data Science

2nd Noah Butler, Alex Wang, Mark Wani, and Brian Zhu. *CWRUSTU*. Faculty Mentor: Shuai Xu, Department of Computer and Data Science

Engineering

1st Michael Kong, Denzel Salas, Yang Shang, Melanie Uroda, and Stephanie Wang. *At-Home Monitoring of Syncopal Events*. Faculty Mentor: Colin Drummond, Department of Biomedical Engineering

1st Cole Judson, Anya Mathis, Abdul Melaiye, and Mohit Patel. *Biometrics Tracking for Stroke Rehabilitation*. Faculty Mentor: Matthew Williams, Department of Biomedical Engineering

2nd Marcus-Vincent Bella Jaro, and Amarachi Chukwumaeze. *Pediatric Pulse Oximeter for Low- and Middle-Income Countries*. Faculty Mentor: Brecken Blackburn, Department of Biomedical Engineering

2nd Eamon Kraft, Lily McCloskey, Kate Menzer, Lexi Miskey, and Shao Xiang. *Hand Weakness Assistance Device*. Faculty Mentor: Jordan Smith, Department of Biomedical Engineering

2nd Anuvi Gupta, and Caroline Kromalic. *Opening the Door to a Better Shelf*. Faculty Mentor: John Lewandowski, Department of Materials Science and Engineering

2nd Ashwin Menon. *A Low Cost, Reconfigurable Mould for Prototyping Composite Surfaces*. Faculty Mentor: Majid Rashidi, Department of Mechanical and Aerospace Engineering

Life Sciences

1st Nivedita Srinivasan. *Enhancing NK Cell Cytotoxicity for Solid Cancers with Small Molecule Therapy*. Faculty Mentor: Dr. David Wald, Department of Pathology. Capstone Instructor: Emmitt Jolly, Department of Biology

1st Mustafa Khan. *Cognitive Impairment in Young Adults with Large Vessel Occlusion Stroke: A Critical Predictor of Functional Outcomes*. Faculty Mentor: Ghulam Abbas Kharal, Department of Neurology

1st Zion Tasew. *RNAi Screen of Candidate Proteins Related to Meiotic DSB Protein, Vilya, In D. melanogaster*. Faculty Mentor: Nicole Crown, Department of Biology

1st Ian Zagorac. *Liposomal Delivery of Securinine-Derived Thioredoxin Reductase Inhibitor for Acute Myeloid Leukemia Therapy*. Faculty Mentor: Gregory Tochtrop, Department of Chemistry

1st Jackie Cai. *Investigating the Effects of Anti-Diabetic Medications on Oncogenic Promyelocytic Leukemia 1 Expression in Estrogen Receptor-Positive Breast Cancer*. Faculty Mentor: Hung-Ying Kao, Department of Biochemistry

2nd Kayleigh Bauer. *Characterizing the Effects of De Novo CTNNA2 Missense Mutations in Lissencephaly*. Faculty Mentor: Ashleigh Schaffer, Department of Genetics and Genome Sciences

Social Sciences

1st Kamarea Valentine. *“So You Think You Know Struggle?” A Literary Analysis on the Roles of Racial Identity and Race-Related Stress in Black American Activism*. Faculty Mentor: Sharon Milligan, Department of Jack, Joseph, and Morton Mandel School of Applied Social Sciences.

1st Shejuti Wahed. *Assessing Subjective Cognition: Memory Clinics Assessment for Epilepsy (MAC-E) Norms and Reported Cognitive Concerns in Adults with Epilepsy*. Faculty Mentor: Robyn Busch, Department of Neurology

2nd Olivia Wang. *Effortful Prosocial Behavior in Relational Contexts*. Faculty Mentor: Yasuo Kuniyoshi, Department of Psychological Sciences

2nd Pehel Patel and Sonia Shenoy. *A Woman's Right to Work: The Effect of Mandatory State-Paid Family Leave Law on Female Labor Force Participation*. Faculty Mentor: Mark Schweitzer, Department of Economics

2nd Ify Chidi. *Comparing Disparities Between Electronic Health Record Data and “Gold Standard” National Health Interview Survey Data for Inpatient and Outpatient Services*. Faculty Mentor: Rachel Pope, Department of Medicine

Physical Sciences

1st Ryan Pappalardo. *Rheology of Dense Suspensions with Repulsive Inter-particle Forces under Shear Reversal*. Faculty Mentor: Abhinendra Singh, Department of Macromolecular Science and Engineering

1st Omar Ali. *Towards robust quantum-enhanced gyroscopes: Decoherence and Squeezing Dynamics in Electronuclear Spin Systems*. Faculty Mentor: Paola Cappellaro, Department of Physics

1st Arjun Saulnier. *Ultraviolet Photodegradation of DNA and RNA Nucleotides at 266 nm*. Faculty Mentor: Carlos Crespo-Hernandez, Department of Chemistry

2nd Kai Yamagami. *Permeation of Polyacrylamide Hydrogels inside Complex Coacervate Droplets*. Faculty Mentor: Svetlana Morozova, Department of Macromolecular Science and Engineering