

*Summer 2024 Undergraduate Research Symposium: List by Mentor*

Name spellings appear as submitted in OURConnect. Names may be edited (for future reporting) via “my profile” in OURConnect.

Mentor Name	Presentation	Students	Title
Adeoye Olenloa, Temitope Folasade	Talk #9018 presented 7/25-8/01 virtually	Shamari Garrett <sup>†</sup>	Analyzing Neighborhood Property Conditions in South Lafayette Neighborhood
Adeoye Olenloa, Temitope Folasade	Talk #9020 presented 7/25-8/01 virtually	Hannah Krouse <sup>†</sup> Rebekah Chaffee <sup>†</sup> Logan Locker <sup>†</sup> Heidi Vazquez Garcia <sup>†</sup> Georgia Edwards <sup>‡</sup> Sam Heidlebaugh <sup>‡</sup> Lourdes Sanchez <sup>‡</sup>	Assessing Youth Learning and Development and Parental Needs in an Afterschool Program
Afshang, Mehrnoosh	Poster #1027 presented 7/25 @ 9:00-10:00am	En-tsz Liu <sup>†</sup>	Molecular Release Experiments from Micro-fibrillated Cellulose
Agrawal, Rakesh	Talk #7026 presented 7/25 @ 10:40am	Kamran Hajibayli <sup>†</sup>	Solution-Processed Synthesis and Optoelectronic Characterization of Chalcogenide Perovskite Nanomaterials: The Case of (BaxSr1-x)ZrS3
Aime, Mary	Poster #1062 presented 7/25 @ 9:00-10:00am	Lane Bell <sup>†</sup> Bryan Reyes <sup>‡</sup>	Examining Diversity Trends of Co-Infectious Organisms within Native Indiana Rust
Aime, Mary	Poster #1274 presented 7/25 @ 10:30-11:30am	Bryan Reyes <sup>†</sup> Lane Bell <sup>‡</sup>	Investigating Leotiomycetes from Indiana Aquatic Ecosystems
Akash, Anwarul Islam	Poster #1260 presented 7/25 @ 10:30-11:30am	Jack Rearden Ferlazzo <sup>†</sup>	Nanoscale 3D Printing using Two-Photon Lithography for Biomedical and Electronic Applications
Al Hawwash, Awadh Mubarak M	Poster #1616 presented 7/25 @ 1:30-2:30pm	Nicholas Herschel Burriss <sup>†</sup>	Two Channel Low Frequency Alternating Currents to Achieve Nerve Conduction Block
Alam, Afaque	Poster #1256 presented 7/25 @ 10:30-11:30am	Ishaan Breinig <sup>†</sup>	Evaluation of Flammability Mitigation in Lithium-Ion Batteries Using Phosphorous-Based Electrolyte Additives
Alam, Waqas	Poster #1015 presented 7/25 @ 9:00-10:00am	Joyce Hu <sup>†</sup>	Hydrophobic Carbonized Wood Membranes: A Suitable Alternative for Membrane Distillation
Alexeenko, Alina	Poster #1442 presented 7/25 @ 12:00-1:00pm	Chi-En Huang <sup>†</sup>	Comparative Analysis of Methods for Measuring Mass Transfer Resistance (Rp) from Temperature in Lyophilized Formulations
Allen, Brandon Chase Myke	Poster #1200 presented 7/25 @ 10:30-11:30am	Aspen Arnold <sup>†</sup>	The New Mine: Navigating the Environmental Challenges of EV Battery Disposal
Allen, Brandon Chase Myke	Poster #1202 presented 7/25 @ 10:30-11:30am	Scott Edward <sup>†</sup>	An Integrated Future: Developing Optimal EV Infrastructure in Urban Areas
Allen, Brandon Chase Myke	Poster #1203 presented 7/25 @ 10:30-11:30am	Kaydence Hall <sup>†</sup>	Breathe EV: Centering Community Health in the Pursuit of EV Adoption in Indiana
Allen, Brandon Chase Myke	Poster #1204 presented 7/25 @ 10:30-11:30am	Angelic Harris <sup>†</sup>	Charging Indiana: A Review Into Equitable Access to EV Charging Stations in Indiana
Allen, Brandon Chase Myke	Poster #1205 presented 7/25 @ 10:30-11:30am	Jarrett Harris <sup>†</sup>	EV Innovation: Systematic review of EV battery impact in the last 20 years
Allen, Brandon Chase Myke	Poster #1206 presented 7/25 @ 10:30-11:30am	Francisco Hurtado <sup>†</sup>	To BEV or not BEV: Comparing EV power sources ability to reduce the US's carbon footprint

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Allen, Brandon Chase Myke	Poster #1208 presented 7/25 @ 10:30-11:30am	Quayannah Lane†	Youth Engineers in the Sustainability Program: A Case Study of a Research Program Effort to Support High School Students College Readiness
Allen, Brandon Chase Myke	Poster #1210 presented 7/25 @ 10:30-11:30am	Tiara Thomas†	Powering Equity in Louisiana Through EV Adoption
Allen, Brandon Chase Myke	Poster #1211 presented 7/25 @ 10:30-11:30am	Daniel White†	The Hybrid Revolution: Steering the Path for EV Evolution
Allen, Brandon Chase Myke	Talk #9008 presented 7/25-8/01 virtually	Abdellah Amrhar†	Optimizing EV Charging Infrastructure: Strategic Stop and Road Locations
Allen, Brandon Chase Myke	Talk #9009 presented 7/25-8/01 virtually	Elsia Rodriguez-Linares†	Analyzes of Salt lake city, US, environmental and health impacts of electrification of roadways in an Urban setting
Allen, Brandon Chase Myke	Talk #9010 presented 7/25-8/01 virtually	Robert D Serrano†	Increasing Electric Vehicle Charger Availability with a Mobile, Self-Contained Charging Station
Allen, Kaitlyn Nicole	Poster #1201 presented 7/25 @ 10:30-11:30am	Daisey Briggs†	EVs for all: How Does Indiana's Plans for EV Charging Infrastructure Employ Equity?
Amusuo, Paschal Chukwuebuk	Poster #1622 presented 7/25 @ 1:30-2:30pm	Owen J Cochell†	ANSI-C Bounded Model Checking for security verification in Contiki-NG network stacks
An, Jiajun	Talk #7028 presented 7/25 @ 11:20am	Brian G Mmari†	Active Aerodynamic Tail Enhances Agile Locomotion of Legged Robots in Challenging Natural Environments
Anderson, Mark Thomas	Poster #1062 presented 7/25 @ 9:00-10:00am	Lane Bell† Bryan Reyes‡	Examining Diversity Trends of Co-Infectious Organisms within Native Indiana Rust
Applegate, Bruce M	Poster #1038 presented 7/25 @ 9:00-10:00am	Luisa Valentina Mora Perez†	Phage-based detection of Escherichia coli O157:H7 in leafy greens
Ardekani, Arezoo	Poster #1658 presented 7/25 @ 1:30-2:30pm	Madeline Jane Stevenson† Luhao Xu* Shlok Rajesh Kulkarni*	Development of Magnetic Bead-Based Active Microrheology Prototype for Probing and Measuring Mechanical Properties of Biological Matter
Ashish, Ashish	Talk #9002 presented 7/25-8/01 virtually	Austin Riley Lovell† Philip Wisniewski†	AI-Powered Operational Data Analytics: Predicting Job Queue Times on ANVIL
Ashish, Ashish	Talk #9007 presented 7/25-8/01 virtually	Philip Wisniewski† Austin Riley Lovell†	AI-Powered Operational Data Analytics: Predicting Job Queue Times on ANVIL
Ault, Aaron C	Talk #9013 presented 7/25-8/01 virtually	Kevin Ming Chang† Sabrina Chang‡ Aditya Krishnan Sivathanu‡	Geolex: Cloud-based Public Database of Global Geologic Formations
Axelrod, Abram J	Poster #1615 presented 7/25 @ 1:30-2:30pm	Riley N Brown†	Total Synthesis of Anti-Cancer Dihydrogarofuran Natural Products
Baena, Alexander	Talk #7087 presented 7/25 @ 3:00pm	Simone Xin Moulton† Adriana K Sanchez*	Mycoponics: Advanced hydroponics technology for production of mycelial leather
Balaraman, Anand	Poster #1673 presented 7/25 @ 1:30-2:30pm	Clark Lay† Songhao Wu‡	ENERGY ANALYSIS OF THE DEDICATED OUTDOOR AIR CONDITIONING SYSTEM COUPLED WITH A DUAL MEMBRANE MODULE HUMIDITY PUMP.
Banerjee, Arnab	Poster #1017 presented 7/25 @ 9:00-10:00am	Adib Kabir† Arun Arjunakani*	Ultra-sensitive Heat Capacity Measurements of Quantum Spin Liquid Materials in Cryogenic Temperatures
Banerjee, Arnab	Poster #1257 presented 7/25 @ 10:30-11:30am	Piyush Dnyaneshwar Chhallare†	Synthesis and Study of Magnetic Properties of Ytterbium Based Delafossites and Performing Rietveld Refinement

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Barocio Vaca, Eduardo	Poster #1019 presented 7/25 @ 9:00-10:00am	Hanhyun Kwak†	Closed-Loop Sustainability of 3D Printed Carbon Fiber Reinforced Composite Tooling.
Barocio Vaca, Eduardo	Poster #1049 presented 7/25 @ 9:00-10:00am	Pedro Daniel Soto Rodriguez† Ludvik Mathis Fjeld*	In-situ characterization of the rheological behavior that makes a polymer composite printable
Barocio Vaca, Eduardo	Poster #1271 presented 7/25 @ 10:30-11:30am	Alexander Douglas Carlson†	Bed Adhesion Testing of Industrial Scale 3D Printed Materials
Barocio Vaca, Eduardo	Poster #1472 presented 7/25 @ 12:00-1:00pm	Armando David Galicia Huerta† Thomas Edgardo Schmitz‡	Hybrid Printing with Continuous and Discontinuous fibers
Barocio Vaca, Eduardo	Poster #1655 presented 7/25 @ 1:30-2:30pm	Thomas Edgardo Schmitz† Armando David Galicia Huerta‡	Additive Manufacturing with Hybrid Continuous and Discontinuous Fiber Systems
Barta, Riley Bradley	Poster #1657 presented 7/25 @ 1:30-2:30pm	Alexander Joseph Spilotro†	Measurement of Zeotropic Refrigerant Fractionation with Lubricants During Phase Change
Bartlett, Edward L	Poster #1032 presented 7/25 @ 9:00-10:00am	Jax Patrick Marrone† Andres Navarro‡ Sahil Vijay Desai‡ Emily Le Bell‡	Fast Auditory Brainstem Responses as a Method of Hidden Hearing Loss Detection
Bartlett, Edward L	Talk #7054 presented 7/25 @ 12:20pm	Sahil Vijay Desai† Jax Patrick Marrone‡ Andres Navarro‡ Emily Le Bell‡	Feature Extraction for Classification of Small Firearms-Like Noise and Blast Exposure Hearing Loss in Rat Models
Baruah, Rwivoo	Poster #1444 presented 7/25 @ 12:00-1:00pm	Shreya Joshy† Brooke Allison Pilkey‡ Silas Henry Buchanan‡	Investigating the Plant Immune Response to Ralstonia Exopolysaccharide
Baruah, Rwivoo	Poster #1651 presented 7/25 @ 1:30-2:30pm	Brooke Allison Pilkey† Shreya Joshy‡ Silas Henry Buchanan‡	Elucidation of Tomato Immune Responses in Response to Ralstonia Exopolysaccharides
Beechem, Thomas E	Poster #1077 presented 7/25 @ 9:00-10:00am	Bach Son Nguyen†	Characterizing The Electrical And Raman Spectroscopic Properties Of Graphene Field-Effect Transistors (GFET)
Behnke, Adam Winston	Poster #1268 presented 7/25 @ 10:30-11:30am	Carolyn Sun†	Simulation of Membrane Deflection Response to Temporally Impulsed Optical Pressure
Beickman, Zachary Kristopher	Poster #1043 presented 7/25 @ 9:00-10:00am	Eliana Saavedra†	Synthesis Hydrogels with Chondroitin Sulfate and GQLY Peptide to Prevent Cartilage Degradation in Osteoarthritis
Belbase, Bishnu Prasad	Poster #1257 presented 7/25 @ 10:30-11:30am	Piyush Dnyaneshwar Chhallare†	Synthesis and Study of Magnetic Properties of Ytterbium Based Delafossites and Performing Rietveld Refinement
Belkadi, Dhiya eddine	Talk #7022 presented 7/25 @ 10:20am	Junhan Shen†	ARMS: Reconfigurable Microelectronic System for Autonomous Movement and Collaboration
Bergman, Matthew Edward	Poster #1241 presented 7/25 @ 10:30-11:30am	Niki Hamraei†	Deciphering the Roles of Petunia SMAX1 Isoforms in the KAI2-Mediated Signaling Pathway
Bermel, Peter	Poster #1602 presented 7/25 @ 1:30-2:30pm	Riley James Robert Madden†	Evaluating the Radiation-Hardness of Varying COTS EEPROMs in a Thermal Neutron Environment
Bermel, Peter	Talk #7038 presented 7/25 @ 11:40am	Charles Spencer Bowles† Vidisha Singhal‡	Simulation of Modified Coherent Ising Machines for Combinatorial Optimization
Bermel, Peter	Talk #9021 presented 7/25-8/01 virtually	Isabella Virginia Levine† Sayan Roy‡	Investigation of High Energy Radiation Effects on Electronic Memory Devices
Bernal, Ximena	Poster #1212 presented 7/25 @ 10:30-11:30am	Yu-Wei Cheng†	Understanding the mechanisms underlying host preferences in <i>Uranotaenia lowii</i> , a frog-biting mosquito

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Bernal, Ximena	Poster #1213 presented 7/25 @ 10:30-11:30am	Chloe Elizabeth Greco†	The role of Olfactory Cues for Host Localization in Frog-Biting Mosquito, <i>Uranotaenia lowii</i>
Bernal, Ximena	Poster #1214 presented 7/25 @ 10:30-11:30am	Eavan Sohr†	The role of visual cues in host seeking behavior in <i>Uranotaenia lowii</i> , a frog-biting mosquito
Bernal, Ximena	Talk #7006 presented 7/25 @ 9:40am	Katherine Garcia†	Scaling Vision: The Interplay of Eyes, Body Size, and Ecological Functions in Mosquitoes
Bernal, Ximena	Talk #7048 presented 7/25 @ 12:00pm	Isabella Wyatt†	Singing in the Anthropocene: Evaluating Anuran Call Signal Transmission in Urban Environments
Bernal, Ximena	Talk #7049 presented 7/25 @ 12:20pm	Krishna Shah†	Antennal Complexity in Mosquitoes: Association between Structure and Multimodal Sensory Functions
Bernal, Ximena	Talk #7086 presented 7/25 @ 3:40pm	Jabez Soonguei Shin† Adriana Bustos Torres‡	Effect of artificial light at night (ALAN) and traffic noise on anuran communication
Bhatnagar, Siddharth	Poster #1025 presented 7/25 @ 9:00-10:00am	Matthew S Leight† Eleanor Captola Hostetler‡	Shock Tube Experimentation and High-Speed Shock Wave Imaging of Atmospheric-Like Particles
Bindra, Hitesh	Poster #1427 presented 7/25 @ 12:00-1:00pm	Apoorva Bahl† Stella Mae Betts‡	Enhancing the Gallium Thermal Hydraulic Experiment (GaTE) Facility with Remote Automation for Advanced Reactor Simulation
Bindra, Hitesh	Poster #1428 presented 7/25 @ 12:00-1:00pm	Stella Mae Betts† Apoorva Bahl‡	Enabling Remote Sensing and Remote Operation of the Gallium Thermal Hydraulic Experiment (GaTE) Facility
Blake, Jeanna Marie	Talk #7047 presented 7/25 @ 12:40pm	Namju Kim†	Identification of a Novel Candidate Variant in CLPX for Spinocerebellar Ataxia in a Mixed Breed Dog
Blumenschein, Laura Helen	Talk #7109 presented 7/25 @ 4:00pm	Ethan Michael DeVries† Mustafa Ugur*	Optimizing Wire Routing in Soft-Growing Robots for Enhanced Performance
Bok, Andrew Stephen	Poster #1440 presented 7/25 @ 12:00-1:00pm	Bryan Gong†	Powder Deposition for Polymer Bonded Explosives
Boor, Brandon	Poster #1451 presented 7/25 @ 12:00-1:00pm	Minh An Nguyen Luu†	Laser Diffraction-Based Particle Size Distribution Analysis of Indoor Settled Dust
Bowen, Craig L	Poster #1056 presented 7/25 @ 9:00-10:00am	Rubyleane Linton† Scott A Gentry* Amy R Witman* Gabriela Gambirazio* Farren E Osborn*	Investigating suspected mosquitos for the presence of Cache Valley Virus in Indiana
Breen, Lorin Irene	Poster #1406 presented 7/25 @ 12:00-1:00pm	Dania M Zein†	Transitions Between Electron Emission Mechanisms in Semiconductors
Briggs, Scott D	Poster #1222 presented 7/25 @ 10:30-11:30am	Matthew Tabrisky† Krishna P Patel‡	The Set1 histone H3K4 methyltransferase alters <i>Candida glabrata</i> pathogenesis by controlling the expression of genes involved in cell wall formation.
Briggs, Scott D	Poster #1408 presented 7/25 @ 12:00-1:00pm	Lauren Rose Connors†	Investigating the role of Erg5 in azole susceptibility in <i>Candida glabrata</i>
Brinton, Christopher G.	Talk #7102 presented 7/25 @ 4:00pm	Mathias Erik Bock Agerman†	Wireless Sensor Network Deployment in Contested and Denied Undersea Environments
Broberg, Morgan Renee	Poster #1624 presented 7/25 @ 1:30-2:30pm	Miles T Davis†	Behavior of Steel-Plate Composite T-Shaped Connections
Broman, Meaghan M	Poster #1057 presented 7/25 @ 9:00-10:00am	Allison Grace Schimpf† Alexander W Enstrom*	Identification of mast cells within the tumor immune microenvironment of canine urothelial carcinoma

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Brosseau-Lapre, Francoise	Poster #1004 presented 7/25 @ 9:00-10:00am	Niah Nieuwenhuis†	Speech Perception and Production Variability in Preschoolers With and Without Speech Sound Disorders
Brown, Josephine Maria	Talk #7005 presented 7/25 @ 9:40am	Hurshal Pol†	Unveiling PFOS Neurotoxicity: Spatial Analysis of Neurotransmitters with DESI-MSI
Brown, Lisa Ann	Poster #1002 presented 7/25 @ 9:00-10:00am	Deanna Durbent†	Effects of PFAS exposure on reward sensitivity, cognition, and psychiatric symptomology
Buerke, Cameron James	Poster #1406 presented 7/25 @ 12:00-1:00pm	Dania M Zein†	Transitions Between Electron Emission Mechanisms in Semiconductors
Buerke, Cameron James	Poster #1603 presented 7/25 @ 1:30-2:30pm	Nicodemus M O'Brian†	Electron Emission Measurements in Schottky Barrier Diodes Exposed to Ionizing Radiation
Bullock, Darcy M	Poster #1051 presented 7/25 @ 9:00-10:00am	Vihaan Vajpayee† Andrew Joseph Thompson*	Evaluating Intersection Safety through Hard Braking Events: A Comparative Analysis of Signalized Intersections, Roundabouts, and All-Way Stops Using Connected Vehicle Data
Bullock, Darcy M	Poster #1269 presented 7/25 @ 10:30-11:30am	Andrew Joseph Thompson† Vihaan Vajpayee*	Evaluating the Use of LiDAR Traffic Data for Assessing Infrastructure
Bush, Deborah Hannah	Poster #1224 presented 7/25 @ 10:30-11:30am	Alejandro Daza Gallo†	Genomic imputation and prediction analysis: Unraveling genetic variability in dairy cattle
Campbell, Robert A	Talk #9004 presented 7/25-8/01 virtually	Alex Sieni†	Automating HPC Software Deployment
Campbell, Robert A	Talk #9006 presented 7/25-8/01 virtually	Jeffrey Winters†	Automating Research Software Deployment - PLENUM Pipeline
Campos, Gabriel Soares	Poster #1224 presented 7/25 @ 10:30-11:30am	Alejandro Daza Gallo†	Genomic imputation and prediction analysis: Unraveling genetic variability in dairy cattle
Cannon, Jason R	Poster #1069 presented 7/25 @ 9:00-10:00am	Dia Dipen Jhaveri†	Does M5 Muscarinic Receptors play a role in Chlorpyrifos-Induced Dopaminergic Neuron Toxicity?
Cannon, Jason R	Talk #7005 presented 7/25 @ 9:40am	Hurshal Pol†	Unveiling PFOS Neurotoxicity: Spatial Analysis of Neurotransmitters with DESI-MSI
Cappelleri, David J	Poster #1450 presented 7/25 @ 12:00-1:00pm	Ismael A Luna†	UGV IoT Deployment System
Castillo, Alberto	Poster #1018 presented 7/25 @ 9:00-10:00am	Ali Kalmagambetov†	Utilizing alternative air-entraining methods to enhance freeze-thaw durability of concrete with incorporated nanomaterials.
Cervini, Chiara	Poster #1200 presented 7/25 @ 10:30-11:30am	Aspen Arnold†	The New Mine: Navigating the Environmental Challenges of EV Battery Disposal
Cervini, Chiara	Poster #1201 presented 7/25 @ 10:30-11:30am	Daisey Briggs†	EVs for all: How Does Indiana's Plans for EV Charging Infrastructure Employ Equity?
Cervini, Chiara	Poster #1202 presented 7/25 @ 10:30-11:30am	Scott Edwards†	An Integrated Future: Developing Optimal EV Infrastructure in Urban Areas
Cervini, Chiara	Poster #1203 presented 7/25 @ 10:30-11:30am	Kaydence Hall†	Breathe EV: Centering Community Health in the Pursuit of EV Adoption in Indiana
Cervini, Chiara	Poster #1204 presented 7/25 @ 10:30-11:30am	Angelic Harrist†	Charging Indiana: A Review Into Equitable Access to EV Charging Stations in Indiana
Cervini, Chiara	Poster #1205 presented 7/25 @ 10:30-11:30am	Jarrett Harris†	EV Innovation: Systematic review of EV battery impact in the last 20 years

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Cervini, Chiara	Poster #1206 presented 7/25 @ 10:30-11:30am	Francisco Hurtado†	To BEV or not BEV: Comparing EV power sources ability to reduce the US's carbon footprint
Cervini, Chiara	Poster #1208 presented 7/25 @ 10:30-11:30am	Quayannah Lane†	Youth Engineers in the Sustainability Program: A Case Study of a Research Program Effort to Support High School Students College Readiness
Cervini, Chiara	Poster #1211 presented 7/25 @ 10:30-11:30am	Daniel White†	The Hybrid Revolution: Steering the Path for EV Evolution
Cervini, Gaia	Talk #7069 presented 7/25 @ 2:00pm	Sai Shashank Mukkerat†	Analyzing the Impacts of Temperature on Electric Vehicle Adoption Rates Across Multiple US States
Chagas Boavida, Leonor Maria de Fatima	Poster #1061 presented 7/25 @ 9:00-10:00am	Ava Grace Barnes†	Evaluating the Impact of Natural Variation on Double Fertilization in Arabidopsis Thaliana
Chagas Boavida, Leonor Maria de Fatima	Poster #1237 presented 7/25 @ 10:30-11:30am	Elizabeth Agyei†	Investigating the effects of DMP9 overexpression in osmoregulation in vegetative tissue
Chahine, Ricardo	Poster #1207 presented 7/25 @ 10:30-11:30am	Olivia J Kurtz†	Techno-Economic Feasibility of Concurrent Megawatt and Dynamic Wireless Power Transfer Charging Infrastructure for Freight Vehicles along an Interstate Corridor
Chahine, Ricardo	Talk #7069 presented 7/25 @ 2:00pm	Sai Shashank Mukkerat†	Analyzing the Impacts of Temperature on Electric Vehicle Adoption Rates Across Multiple US States
Chan, Deva	Poster #1048 presented 7/25 @ 9:00-10:00am	Shreya Sinha†	Alterations in Extracellular Matrix Gene Expression Resulting from Nonequibiaxial Cyclic Stretch of Synoviocytes
Chan, Deva	Poster #1628 presented 7/25 @ 1:30-2:30pm	Defne Ekici†	Applications of Atomic Force Microscopy to Assess the Mechanics of Oocytes
Chan, Deva	Talk #7042 presented 7/25 @ 12:00pm	Sarah Marie Stallert†	Investigating the Relationship Between Gut Microbiome, Biomechanics, and Scoliosis: A Holistic Approach Through Two Complementary Studies
Chan, Stanley H	Poster #1466 presented 7/25 @ 12:00-1:00pm	William Yau† Weijian Zhang‡	Analysis and Improvement of Rank-Ordered Mean Algorithm in Single-Photon LiDAR
Chappell, Jacob	Talk #9015 presented 7/25-8/01 virtually	tri Than† Brady Owen Philhower† Rauf Emre Erkiletlioglu† Gilbert Chang†	Chiplet Integration on PCB
Chapple, Clint C S	Poster #1419 presented 7/25 @ 12:00-1:00pm	Eleanore Margaret Malinowski†	Changes in development and metabolism in an inducible lignin-modified Arabidopsis mutant
Chatzidakis, Stylianos	Poster #1602 presented 7/25 @ 1:30-2:30pm	Riley James Robert Madden†	Evaluating the Radiation-Hardness of Varying COTS EEPROMs in a Thermal Neutron Environment
Chatzidakis, Stylianos	Poster #1607 presented 7/25 @ 1:30-2:30pm	Parker Smith†	Assessment of Composite Materials for Radiation Protection using OpenMC Simulations
Chatzidakis, Stylianos	Poster #1608 presented 7/25 @ 1:30-2:30pm	Kailyn D Steed†	Composite Material Development for Simultaneously Shielding Neutron and Gamma Radiation
Chatzidakis, Stylianos	Talk #7078 presented 7/25 @ 2:00pm	Julian Mauricio Cruz Rojas†	Research nuclear reactor PUR-1: Anomaly detection using machine learning



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Chen, Boyuan	Talk #9015 presented 7/25-8/01 virtually	tri Than† Brady Owen Philhower† Rauf Emre Erkiletlioglu† Gilbert Chang†	Chiplet Integration on PCB
Chen, Cheng	Poster #1225 presented 7/25 @ 10:30-11:30am	Ana Milena Espinosa Jimenez†	Latency, Velocity and Accuracy Evaluation of Classification Models on Edge Devices
Chen, Ching-Chien	Poster #1447 presented 7/25 @ 12:00-1:00pm	Manila Kunwar† Ruey-Bin Tsai‡ Junyeong Ahn‡	Characterization and Improvement of Vegetable Oils as Quenchants for Heat Treatment of Metals
Chen, Ching-Chien	Talk #7067 presented 7/25 @ 1:20pm	Ruey-Bin Tsai† Junyeong Ahn‡ Manila Kunwar‡	Sustainable Quench Oil Replacements for Austempering Salt Quenchants
Chen, Hao	Poster #1402 presented 7/25 @ 12:00-1:00pm	Zachary Rasmussen†	Optimizing Non-Sharp Distillation Column Sequence using Surrogate Physics- Informed Neural Network
Chen, Yueyi	Talk #7050 presented 7/25 @ 12:00pm	Nikki Leslie†	Targeting GRK5 in Metastatic Cancer: Structural Insights and Therapeutic Evaluation of Novel Inhibitors
Cherkauer, Keith A	Poster #1473 presented 7/25 @ 12:00-1:00pm	Race Ethan Medema† Alexandra Cynthia Marlene Britto‡	Chlorophyll Analysis and its Role in Modeling Harmful Algae Blooms
Chew, Ismar Leonel	Poster #1452 presented 7/25 @ 12:00-1:00pm	Ellen Ma†	Mechanical Properties of UV Curable Polymer-Bonded Explosive Molding Powder
Chien, Stanley Yung-Ping	Poster #1649 presented 7/25 @ 1:30-2:30pm	Siddharth Murali†	Measurement of Vulnerable Road User Micro Doppler Signatures
Chien, Yuan-Chi	Poster #1242 presented 7/25 @ 10:30-11:30am	Molly Kubal†	Differential Roles of ACS Enzyme Isoforms in Ethylene-Mediated Abiotic Stress Responses in Arabidopsis thaliana
Chobe, Gaurav Somnath	Poster #1258 presented 7/25 @ 10:30-11:30am	Jacob Daniel†	The Effects of Cyclic Moment Loading on Concrete Foundations with Post-Installed Anchor Groups
Choi, Jaein	Poster #1240 presented 7/25 @ 10:30-11:30am	Holly Gustavsen†	Modeling buffalograss phenology as a response to climate change
Choi, Youn jeong	Poster #1231 presented 7/25 @ 10:30-11:30am	Cora Jane Reynolds† Lail Shaw† Hallie Grace Jackson‡	Can Hemoglobin binding models be used to predict toxicity of mixtures of Forever Chemicals???
Christensen, Bailey Alexander	Poster #1653 presented 7/25 @ 1:30-2:30pm	Abhishek Raj†	Identifying Radiation Particles through Acoustic Shock Signals: A Deep Learning Perspective
Christov, Ivan C	Poster #1455 presented 7/25 @ 12:00-1:00pm	Rafael Monteiro Martins Pinheiro†	Reduced modeling of oscillatory flow in soft hydraulic systems
Ciez, Rebecca	Poster #1656 presented 7/25 @ 1:30-2:30pm	Audrey Ye-Ning Schuster†	Modeling Applications of High- Temperature Heat Pumps for Industrial Use
Clark, Alexandra Blair	Poster #1236 presented 7/25 @ 10:30-11:30am	Reagan John Thompson†	Shearing Fracture Networks
Clark, Alexandra Blair	Poster #1255 presented 7/25 @ 10:30-11:30am	Ozan Altuntast†	Investigation of the Formation of Fracture Intersection Geometry
Clark, Chancellor Bart	Poster #1245 presented 7/25 @ 10:30-11:30am	Adrian Muñoz†	Evaluation of the role of the Lateral Boundary Domain Transcription Factor GmLBD5 in Soybean Response to Sulfur Deficiency
Cloft, Sara Elizabeth	Poster #1071 presented 7/25 @ 9:00-10:00am	Rachel Elizabeth Kuhn† Abbilyne Nicole Eldert† Dylan Wade Seets†	Investigation of the yolk color differences with Orange Corn versus Yellow Corn within laying chickens.

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Cloft, Sara Elizabeth	Poster #1075 presented 7/25 @ 9:00-10:00am	Dylan Wade Seets† Carl Anthony Kroger‡	Investigating the application of Reference Point Indentation as a possible tool to determine quality metrics for excised keel bones.
Coelho, Paula Danielly B	Talk #7018 presented 7/25 @ 10:40am	Nikki Lynn Zavodny†	The Worlds on Fire – Step Up to Protect Public Health and Safety
Coffey, Madeline Christina	Talk #7047 presented 7/25 @ 12:40pm	Namju Kim†	Identification of a Novel Candidate Variant in CLPX for Spinocerebellar Ataxia in a Mixed Breed Dog
Cohen, Lucas Michael	Poster #1620 presented 7/25 @ 1:30-2:30pm	Ethan Chieng Chiao†	On-chip Phase Calibration Circuits With Integrated Photonic Bragg Gratings
Colbert, Ethan Michael	Talk #7091 presented 7/25 @ 3:20pm	Jack Patrick Rodgers†	Bumblebee: A self-supervised transformer model to learn top quark decay at the Large Hadron Collider
Collard, Diane	Poster #1426 presented 7/25 @ 12:00-1:00pm	Gianna Marie Arnone† Matthew William Vaughn*	Novel Method for Enhancing Boron Combustion vis Electrochemical Deposition of Lithium
Costa Alves Souza, Olga	Talk #7103 presented 7/25 @ 4:20pm	Adam G Weber†	Data-Driven Insights into Enzyme Reaction Catalysis for Green Chemistry
Cottrell, Kyle Aaron	Poster #1221 presented 7/25 @ 10:30-11:30am	David Stanciel Onishile†	Evaluating the dependence of breast cancer on mitochondrial translation
Cox, Joshua Michael	Poster #1657 presented 7/25 @ 1:30-2:30pm	Alexander Joseph Spilotro†	Measurement of Zeotropic Refrigerant Fractionation with Lubricants During Phase Change
Cruz Santos, Deise	Poster #1231 presented 7/25 @ 10:30-11:30am	Cora Jane Reynolds† Lail Shaw† Hallie Grace Jackson‡	Can Hemoglobin binding models be used to predict toxicity of mixtures of Forever Chemicals???
Cui, Xingshan	Poster #1433 presented 7/25 @ 12:00-1:00pm	Rafael Casas Lozano†	Search for leakage-free and entangling quantum gates in the Fibonacci and $D(S_3)$ anyon systems
Dankoski, Sean	Poster #1624 presented 7/25 @ 1:30-2:30pm	Miles T Davis†	Behavior of Steel-Plate Composite T-Shaped Connections
Danzeisen, Emily Lynae	Poster #1216 presented 7/25 @ 10:30-11:30am	Laila Fortson†	Validating and developing the AID system for anti-fungal drug discovery
Darji, Saloni	Poster #1042 presented 7/25 @ 9:00-10:00am	Ankita Prasad†	Development of Elastin-Like Polypeptide Based Nucleic Acid Delivery System for Treatment of Bladder Cancer
Das, Subhadeep	Poster #1407 presented 7/25 @ 12:00-1:00pm	Jamie Kim Bryan†	Unraveling the roles of DEAD-box helicases in eukaryotic gene regulation
Dasaro, Sophia R	Poster #1436 presented 7/25 @ 12:00-1:00pm	Luke DeLion†	Formulation Engineering to Improve Drug Dissolution Kinetics in GI Tract
Davis, Barrett Freeland	Poster #1462 presented 7/25 @ 12:00-1:00pm	Julia Janina Szela†	Laser-Induced Graphene Electrochemical Sensing for Low-Cost Point of Care Devices
Davis, Barrett Freeland	Poster #1467 presented 7/25 @ 12:00-1:00pm	Matthew T Zegarski†	Cleanroom-free Double Nanohole Plasmonic Biosensor Fabrication
Davis, James C	Poster #1437 presented 7/25 @ 12:00-1:00pm	Martin Detloff†	Exploring the extent of similarities in software failures across industries using LLM's
Davis, James C	Poster #1468 presented 7/25 @ 12:00-1:00pm	Bryan Zhang†	Enhancing Software Failure Analysis through Semantic Similarity and Knowledge Graph Modeling
Dawood, Osama Ragab Ahmed	Poster #1234 presented 7/25 @ 10:30-11:30am	Isabella Freitas† Monique Mariae Morset†	Prospects for Quantum Entanglement at the High Luminosity Large Hadron Collider (HL-LHC)
de Picoli Ferreira, Tatiana	Talk #7075 presented 7/25 @ 2:00pm	Haixuan Huang†	Superconducting Diode Effect in Two-dimensional Topological Insulator Edges and Josephson Junctions
Deb, Aarya	Poster #1450 presented 7/25 @ 12:00-1:00pm	Ismael A Luna†	UGV IoT Deployment System



Summer 2024 Undergraduate Research Symposium: *List by Mentor*

Mentor Name	Presentation	Students	Title
Deka, Rajdeep	Poster #1223 presented 7/25 @ 10:30-11:30am	Mateo Colorado Zapata†	Catalytic Depolymerization of Lignin of Corn Stover and Sawdust for Medium-Density Fiberboard Production
Deming, Brody Alan	Talk #7090 presented 7/25 @ 3:00pm	Rineet Ranga† Akila Abeyaratna‡	Evaluation of Ketamine's Prosocial Effects in Scn2a-deficient Mice
Deolia, Akshay	Talk #7066 presented 7/25 @ 1:00pm	Gabriel Brandt de Toledo†	Vibrating piezoelectric membranes for water filtration applications
Dewanatha, Parikesit Pandu	Talk #7044 presented 7/25 @ 12:40pm	Nikolai Baranov†	Electric Vehicle (EV) Thermal System Design Optimization
Dick, Jeffrey Edward	Poster #1272 presented 7/25 @ 10:30-11:30am	Keeley Vonne Farmer†	The investigation and optimization of MIP-based PFAS sensing across sample matrices
Dick, Jeffrey Edward	Talk #7004 presented 7/25 @ 9:20am	Amber K Wang†	Using Voltammetry to Probe Mass Transport in an Acoustically Levitated Droplet
Dick, Jeffrey Edward	Talk #7023 presented 7/25 @ 10:40am	Yashvi Choudhary†	Analysing matrix complexity for improved aptamer sensor calibration
Dihel, Logan	Talk #7029 presented 7/25 @ 11:40am	Joseph Michael McAlear†	Tau Estimation and 1 DOF Control using ORB Features
Dikshit, Abhijnan	Poster #1459 presented 7/25 @ 12:00-1:00pm	Milan Edward Rahmani† Sota Yanagisawa‡	Validation and Analysis for Full Scale Avian Inspired Flapping Wing Aerial Vehicle (FWAV)
Dikshit, Abhijnan	Talk #7011 presented 7/25 @ 9:20am	Sota Yanagisawa† Milan Edward Rahmani‡	Actuation strategy for an avian-inspired flapping-wing aerial vehicle (FWAV) to achieve stable flapping-gliding transition
Dilkes, Brian	Poster #1411 presented 7/25 @ 12:00-1:00pm	Gage Ryan Edward Gottman†	Metabolite extraction and analysis of High Chlorophyll Fluorescence (HCF) in Sorghum mutants
Ding, Chang	Poster #1619 presented 7/25 @ 1:30-2:30pm	Daniel Matthew Chambers†	Zebrafish Non-Homologous End Joining Knock-In
Dinklage, Felix	Poster #1642 presented 7/25 @ 1:30-2:30pm	Ahhyun Lee†	Novel Molecular and Cardiac Imaging Paradigms for Precision Medicine in Aortopathy
Dong, Ziyu	Poster #1659 presented 7/25 @ 1:30-2:30pm	Maitreyee Panini Telang†	Chemogenetic Tools in Zebrafish: Visualizing and Manipulating Bioelectric Activity
Dong, Ziyu	Talk #7110 presented 7/25 @ 4:20pm	Abigail Martin†	Application of genetically encoded voltage indicators to zebrafish tissue-specific bioelectricity
Dou, Letian	Poster #1026 presented 7/25 @ 9:00-10:00am	Chenyu Li†	Bulky phenylethyl-ammonium organic ligand for 2D perovskite nanowire growth
Dou, Letian	Talk #7088 presented 7/25 @ 3:20pm	Anika Bhoopalam†	Novel Low-Bandgap Perovskites for Solar Cells Using a Computational and Experimental Approach
Doudareva, Natalia	Poster #1241 presented 7/25 @ 10:30-11:30am	Niki Hamraei†	Deciphering the Roles of Petunia SMAX1 Isoforms in the KAI2-Mediated Signaling Pathway
Duan, Runlin	Poster #1007 presented 7/25 @ 9:00-10:00am	Rishika Bera†	PrimerCurator: An LLM Powered Multimedia Educational Content Design and Creation Tool
Dunlap, Caitlin Elizabeth	Poster #1669 presented 7/25 @ 1:30-2:30pm	Alexander Higgins†	Dark-Field Absorbance Circular Dichroism of Oriented Chiral Thin Films
Dyke, Shirley J	Poster #1022 presented 7/25 @ 9:00-10:00am	Aaryan Sachin Lath†	Lunar Habitat Resilience: Vibration Isolation and Fatigue Study
Dykhuisen, Emily	Poster #1471 presented 7/25 @ 12:00-1:00pm	Brett Andrew Anderson†	Characterizing In-vitro Prostate Cancer Cell Responses to Combination Treatment
Ekenstedt, Kari J	Talk #7047 presented 7/25 @ 12:40pm	Namju Kim†	Identification of a Novel Candidate Variant in CLPX for Spinocerebellar Ataxia in a Mixed Breed Dog

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Mentor Name	Presentation	Students	Title
Erk, Kendra A	Poster #1036 presented 7/25 @ 9:00-10:00am	Logan Mick†	The Influence of a Novel Hydrogel Composition on Mechanical Properties of High-Performance Mortar
Erk, Kendra A	Poster #1270 presented 7/25 @ 10:30-11:30am	Evan R Williams†	Interfacial Phase Behavior and Growth of Hexagonal Phase in Concentrated Lamellar Sodium Laureth Sulfate Solution and Cetostearyl Alcohol Crystal
Estrada Gomez, Ana	Poster #1618 presented 7/25 @ 1:30-2:30pm	Belen Noemi Carrasco Grandes†	Harnessing Real-Time Sensor Data: A Novel Approach to Quality Control in Manufacturing
Evans, Janice Perry	Poster #1628 presented 7/25 @ 1:30-2:30pm	Defne Ekici†	Applications of Atomic Force Microscopy to Assess the Mechanics of Oocytes
Evans, Janice Perry	Talk #7059 presented 7/25 @ 1:20pm	Kristina Nicole Lodenquait†	Does Calcium/Calmodulin Protein Kinase II (CaMKII) Affect Sperm-Induced Actin Remodeling in Fertilized Mammalian Eggs?
Faivre, Kyle Timothy	Poster #1612 presented 7/25 @ 1:30-2:30pm	Sho Amagai† Levi M Johnson†	Versatile Covalent Molecular Cages: From Synthesis to Therapeutic Applications
Fawley, Jacob Ryan	Poster #1220 presented 7/25 @ 10:30-11:30am	Andres Moran† Shelby Sliger‡ Joshua Paul Kaluff‡	Characterizing Chromatin Assembly Factor Capabilities of the ATP-dependent Chromatin Remodeler PICKLE (PKL) in <i>Arabidopsis thaliana</i>
Fawley, Jacob Ryan	Poster #1424 presented 7/25 @ 12:00-1:00pm	Elysia Marlena Uggen† Joshua Paul Kaluff‡ Shelby Sliger‡	Proximity Labeling to Identify Transient Protein Interactions with ATP-dependent Chromatin Remodeler PICKLE
Fawley, Jacob Ryan	Poster #1475 presented 7/25 @ 12:00-1:00pm	Amanda Renee Schoonmaker† Joshua T Stephenson‡	Investigating the Role of INO80 in H3K27me3 Homeostasis and Pickle Root Phenotype in <i>Arabidopsis thaliana</i>
Fawley, Jacob Ryan	Talk #7076 presented 7/25 @ 2:20pm	Shelby Sliger†	Characterizing the role of histone variant H2A.Z in heat-responsive gene expression in <i>Arabidopsis thaliana</i>
Felicelli, Andrea Lorena	Poster #1634 presented 7/25 @ 1:30-2:30pm	Ricardo Andrews Huertas†	Biodegradable Hexagonal Boron Nitride Films for Bio-Inspired Radiative Cooling
Ferdausi, Nourin	Poster #1251 presented 7/25 @ 10:30-11:30am	Jesus Noriega†	Structural characterization of a novel stapled peptide inhibitor bound to the BAM complex
Ferreira, Christina R	Talk #7005 presented 7/25 @ 9:40am	Hurshal Pol†	Unveiling PFOS Neurotoxicity: Spatial Analysis of Neurotransmitters with DESI-MSI
Forero velez, Oscar Daniel	Poster #1022 presented 7/25 @ 9:00-10:00am	Aaryan Sachin Lath†	Lunar Habitat Resilience: Vibration Isolation and Fatigue Study
Forney, James D	Poster #1216 presented 7/25 @ 10:30-11:30am	Laila Fortson†	Validating and developing the AID system for anti-fungal drug discovery
Foti, Daniel J	Poster #1002 presented 7/25 @ 9:00-10:00am	Deanna Durbent†	Effects of PFAS exposure on reward sensitivity, cognition, and psychiatric symptomology
Franklin, Nicole Lin	Poster #1470 presented 7/25 @ 12:00-1:00pm	Jiying Zou†	Fabrication of Temperature-sensitive Additives for PFAS-free Fire Fighting Foam Formulations
Fritsch, Tyler Parker	Poster #1050 presented 7/25 @ 9:00-10:00am	Drake William Strait†	Characterization and immunotherapeutic targeting of the tumor microenvironment
Gan, Dongming	Talk #9026 presented 7/25-8/01 virtually	Ethan Andrew Zhang†	Design and Development of a Soft Variable Stiffness Robotic Finger
Gao, Yi	Poster #1229 presented 7/25 @ 10:30-11:30am	Joon Kang†	Sustainable Manufacturing: An analysis of environmental impact associated with ammonia emissions in North Carolina tobacco production
Garcia, R Edwin	Poster #1439 presented 7/25 @ 12:00-1:00pm	David S Estrella†	Growth and modeling of nanopillars towards integrated photonic components

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Mentor Name	Presentation	Students	Title
Garje, Yash Ajay	Poster #1041 presented 7/25 @ 9:00-10:00am	Kayla Renae Phillips†	The PITCH Semiconductors Summer Program: What High School Students Learned?
Garje, Yash Ajay	Poster #1458 presented 7/25 @ 12:00-1:00pm	Hemisha Shardul Patel†	High School Students in Engineering Design Project: Teamwork and Decisions
Garland, Elisabeth E	Poster #1021 presented 7/25 @ 9:00-10:00am	Morgan Grace Laskowski†	Structural Studies of Phospholipase C Enzymes
Garner, Allen L	Poster #1406 presented 7/25 @ 12:00-1:00pm	Dania M Zein†	Transitions Between Electron Emission Mechanisms in Semiconductors
Garner, Allen L	Poster #1603 presented 7/25 @ 1:30-2:30pm	Nicodemus M O'Brian†	Electron Emission Measurements in Schottky Barrier Diodes Exposed to Ionizing Radiation
Garner, Allen L	Poster #1606 presented 7/25 @ 1:30-2:30pm	Alexander Gregory Sinelli† Sree Harsha Naropanth Ramamurthy‡ Allison M Komrska‡	Theoretical Assessment of the Transition Between Electron Emission Mechanisms for Nonplanar Diodes
Garner, Allen L	Poster #1607 presented 7/25 @ 1:30-2:30pm	Parker Smith†	Assessment of Composite Materials for Radiation Protection using OpenMC Simulations
Garner, Allen L	Poster #1608 presented 7/25 @ 1:30-2:30pm	Kailyn D Steed†	Composite Material Development for Simultaneously Shielding Neutron and Gamma Radiation
Gelvin, Stanton B	Poster #1247 presented 7/25 @ 10:30-11:30am	Demi White†	Investigating Protein Interactions in Agrobacterium-Mediated T-DNA Integration
Ghajar-Rahimi, Elnaz	Poster #1642 presented 7/25 @ 1:30-2:30pm	Ahhyun Lee†	Novel Molecular and Cardiac Imaging Paradigms for Precision Medicine in Aortopathy
Ghods, Zahra	Poster #1040 presented 7/25 @ 9:00-10:00am	Michelle Perez Aguilar†	Compromising Machine Learning Systems via Data Loader Manipulation
Ghosh, Neil	Poster #1635 presented 7/25 @ 1:30-2:30pm	Junwoo Jang†	Nanoscale Heat Transfer in Semiconductor Thin Films
Ghosh, Shreya	Talk #9014 presented 7/25-8/01 virtually	David Talabadze†	VIP AMP
Gkritza, Nadia	Poster #1207 presented 7/25 @ 10:30-11:30am	Olivia J Kurtz†	Techno-Economic Feasibility of Concurrent Megawatt and Dynamic Wireless Power Transfer Charging Infrastructure for Freight Vehicles along an Interstate Corridor
Gkritza, Nadia	Talk #7069 presented 7/25 @ 2:00pm	Sai Shashank Mukkera†	Analyzing the Impacts of Temperature on Electric Vehicle Adoption Rates Across Multiple US States
Goergen, Craig	Poster #1227 presented 7/25 @ 10:30-11:30am	Joslyn Renee Ferguson† Niharika Narra‡ John Patrick Salvas*	The Effects of the SGLT2 Inhibition on Cardiac Function in Mice with Duchenne Muscular Dystrophy
Goergen, Craig	Poster #1230 presented 7/25 @ 10:30-11:30am	Daniel Ethan Kelley† Natalie Elizabeth Romick‡	Focused Ultrasound Driven Drug Release from Microrobot in Artificial Colon
Goergen, Craig	Poster #1461 presented 7/25 @ 12:00-1:00pm	Paul William Swift†	Long-term Effects of Repeated, Episodic Heat Exposure on Cardiac Structure and Function in Aged, Obese Mice
Goergen, Craig	Poster #1642 presented 7/25 @ 1:30-2:30pm	Ahhyun Lee†	Novel Molecular and Cardiac Imaging Paradigms for Precision Medicine in Aortopathy
Goergen, Craig	Talk #7040 presented 7/25 @ 11:20am	Niharika Narra†	Thrombus Characterization in Abdominal Aortic Aneurysm and Aortic Dissection Models Using Histology and Scanning Electron Microscopy
Goni Cortes, Joaquin	Poster #1670 presented 7/25 @ 1:30-2:30pm	Xinwan Hu†	Assessing Robustness in fMRI Connectome Identification: Effects of Scan Intervals and Distance Metrics

Student Role Notation: †Presenting Author, ‡Contributing Author, \*Acknowledgement

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Mentor Name	Presentation	Students	Title
Gonzalez, Javier M	Poster #1067 presented 7/25 @ 9:00-10:00am	Royalty Hightower†	Impact of long-term best management practices on soil organic carbon in Midwest cropland
Gonzalez, Javier M	Poster #1276 presented 7/25 @ 10:30-11:30am	Shawn Saturday†	Changes in soil properties in steep small watersheds
Gore, Jay	Poster #1648 presented 7/25 @ 1:30-2:30pm	Nashe Bumi Mucharambeyi†	Extinction Velocities of Droplet Flames in Forced Convection
Gounder, Rajamani P	Poster #1401 presented 7/25 @ 12:00-1:00pm	Kirshaun McGhee†	Methane Dehydroaromatization of Synthesized Zeolite Templated Carbon to Access Thermal and Structural Stability
Gounder, Rajamani P	Poster #1613 presented 7/25 @ 1:30-2:30pm	Arjun Singh Bhadoria†	The Effect of Zeolitic Acids on the Formation of Hydronium Ions in Liquid Water
Gowher, Humaira	Poster #1217 presented 7/25 @ 10:30-11:30am	Juan Alberto Gomez-Solist† Isaiah K Mensah*	CTCF knockdown rescues the MAPK signaling pathway in Vezf1 null murine embryonic stem cells
Gowher, Humaira	Poster #1664 presented 7/25 @ 1:30-2:30pm	Bevan Mathew Ambrose†	Role of Dnm3bas in Epiblast Gene Expression and Epigenetic Dynamics in Stem Cell Development
Gray, Ryan Hunter	Talk #7064 presented 7/25 @ 1:00pm	Richard Lawrence†	Quantifying Rubisco Polymerization within Carboxysomes
Gregor, Justin Bradley	Poster #1408 presented 7/25 @ 12:00-1:00pm	Lauren Rose Connors†	Investigating the role of Erg5 in azole susceptibility in <i>Candida glabrata</i>
Gulewicz, Demetrius	Poster #1639 presented 7/25 @ 1:30-2:30pm	Mason J Kramer†	Controls Design for Regulating Flow in a Single-phase Cooling Loop
Guo, Qi	Poster #1629 presented 7/25 @ 1:30-2:30pm	Alan Fu†	Developing Ultra Low Power Depth Sensing Through Differential Defocus
Gupta, Vanshika	Poster #1273 presented 7/25 @ 10:30-11:30am	Sadie A Poirier† Yashvi Choudhary‡ Megan Leigh Hill* Keeley Vonne Farmer*	Silver leakage in commercially available and bipolar reference electrodes (BPRES): a TNBC toxicity study
Gupta, Vanshika	Talk #7023 presented 7/25 @ 10:40am	Yashvi Choudhary†	Analysing matrix complexity for improved aptamer sensor calibration
Gustafson, Sarah Margaret	Talk #7061 presented 7/25 @ 1:00pm	Nina A Borkowski† Talana N Small‡	Synthetic methods to control Al siting and crystallite size in MFI zeolites for propene oligomerization
Halbrooks, David Neal	Poster #1010 presented 7/25 @ 9:00-10:00am	Hannah Y Chun†	Micro- and Nano-Precision Testing on Low-Temperature Solders
Halbrooks, David Neal	Poster #1259 presented 7/25 @ 10:30-11:30am	Rishipreet Singh Dhir†	Micro- and Nano-Precision Testing On Low Temperature Solders
Hall, Mark C	Poster #1216 presented 7/25 @ 10:30-11:30am	Laila Fortson†	Validating and developing the AID system for anti-fungal drug discovery
Hall, Mark C	Poster #1412 presented 7/25 @ 12:00-1:00pm	Nathan Michael Henderson†	Cdc14 Targeted Antifungal Drug Discovery
Halurkar, Manasi Suchit	Poster #1637 presented 7/25 @ 1:30-2:30pm	Hina Leilani Kadono†	Phenotypic characterization of an SCN2A variant found in a child with autism using hiPSC-derived cortical organoids
Hayes, Daniel Christian	Talk #7026 presented 7/25 @ 10:40am	Kamran Hajibayli†	Solution-Processed Synthesis and Optoelectronic Characterization of Chalcogenide Perovskite Nanomaterials: The Case of (BaxSr1-x)ZrS3
Hearn, Chase Taylor	Poster #1419 presented 7/25 @ 12:00-1:00pm	Eleanore Margaret Malinowski†	Changes in development and metabolism in an inducible lignin-modified Arabidopsis mutant
Heil, Brittany Nicole	Talk #7050 presented 7/25 @ 12:00pm	Nikki Leslie†	Targeting GRK5 in Metastatic Cancer: Structural Insights and Therapeutic Evaluation of Novel Inhibitors
Heil, Joseph Nathanael	Talk #7014 presented 7/25 @ 10:20am	Chunge Li†	Investigation of Hydrogen Evolution and local pH in Aqueous Zinc Ion Batteries

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Mentor Name	Presentation	Students	Title
Hein, Timothy Francis	Talk #9012 presented 7/25-8/01 virtually	Colin James Chambers†	FPGA MUX Space Optimization
Helie, Sebastien	Talk #7034 presented 7/25 @ 11:20am	Alpamys Sultanbek† Hailey Brianna Haglid† Justin Shakergayen‡ Katelyn Krishan Shah‡ Dalton J Aaker‡ Aiyana Sarwar Alam‡ Brian Martin Dodd‡ Brian Song‡ Charles Paul Patterson‡ Christian Alexander Howard‡ Eduard Filip Tanase‡ Yi-Huan Chen‡ Jacob	Categorizing stress in college-age students through EEG data and ML
Henager, Marissa Elaine	Poster #1042 presented 7/25 @ 9:00-10:00am	Ankita Prasad†	Development of Elastin-Like Polypeptide Based Nucleic Acid Delivery System for Treatment of Bladder Cancer
Henager, Marissa Elaine	Poster #1453 presented 7/25 @ 12:00-1:00pm	Louden James Maciag†	Improvement in Epichlorohydrin Coupling for More Effective Drug Synthesis
Hicks, Talon	Poster #1640 presented 7/25 @ 1:30-2:30pm	Shreya Krishnan†	Molecular Mechanisms of Adenylyl Cyclase-Calmodulin-Forskolin Binding in Adenylyl Cyclase 1
Ho, Ka ying	Talk #7099 presented 7/25 @ 4:00pm	Owen T Odney† William Andrew Messman*	Using Data-Driven Equation Discovery Algorithms to Show a Nonlinear Schrodinger Equation Description of Atmospheric Blocking
Hoda, Smriti	Poster #1222 presented 7/25 @ 10:30-11:30am	Matthew Tabrisky† Krishna P Patel‡	The Set1 histone H3K4 methyltransferase alters <i>Candida glabrata</i> pathogenesis by controlling the expression of genes involved in cell wall formation.
Hood, Kaitlyn T.	Poster #1070 presented 7/25 @ 9:00-10:00am	Alexander G Kelley†	Modeling Deformable Cells Using Spherical Harmonics
Hoskins, Tyler D	Poster #1231 presented 7/25 @ 10:30-11:30am	Cora Jane Reynolds† Lail Shaw† Hallie Grace Jackson‡	Can Hemoglobin binding models be used to predict toxicity of mixtures of Forever Chemicals???
Hossain, S S M Tareq	Talk #7088 presented 7/25 @ 3:20pm	Anika Bhoopalam†	Novel Low-Bandgap Perovskites for Solar Cells Using a Computational and Experimental Approach
Hossain, Samera	Poster #1406 presented 7/25 @ 12:00-1:00pm	Dania M Zein†	Transitions Between Electron Emission Mechanisms in Semiconductors
Hossain, Samera	Poster #1608 presented 7/25 @ 1:30-2:30pm	Kailyn D Steed†	Composite Material Development for Simultaneously Shielding Neutron and Gamma Radiation
Howard, Madison Mckensi	Poster #1646 presented 7/25 @ 1:30-2:30pm	Maria Macias† Angelica Sofia Gonzalez-Ng*	Exploring the dynamics of breast cancer metastasis in relation to the high throughput magnetic actuation platform and lung respiration rates
Hu, Hanyao	Poster #1677 presented 7/25 @ 1:30-2:30pm	Chadi Harmouche†	Energy-Optimal Arrival Route Planning for Operations of Multiple Unmanned Aerial Vehicles
Huang, Wei-Ling	Poster #1403 presented 7/25 @ 12:00-1:00pm	Joyce M Rivera Sanchez†	Propylene hydrogenation by main group metal Ga+3 on SiO2 and Al2O3 supported catalysts
Hunter, Jacob Grant	Talk #7089 presented 7/25 @ 3:40pm	Albert Li†	Enhancing Human Psychomotor Learning Through Real-Time Cognitive Feedback
Hussain, Muhammad Mustafa	Talk #7022 presented 7/25 @ 10:20am	Junhan Shen†	ARMS: Reconfigurable Microelectronic System for Autonomous Movement and Collaboration

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Mentor Name	Presentation	Students	Title
Hutzel, William	Poster #1275 presented 7/25 @ 10:30-11:30am	Janessa M Rieser† Chaoyi Hu†	Implementation of a Heat Recovery Chiller In A Solar Thermal Loop
Hyun, Nak-seung Patrick	Talk #7003 presented 7/25 @ 9:00am	Andrew Lewis Hadikusumo†	Foldable FWV Fabrication and Control Analysis
Hyun, Nak-seung Patrick	Talk #7029 presented 7/25 @ 11:40am	Joseph Michael McAlear†	Tau Estimation and 1 DOF Control using ORB Features
Iglesia, Enrique	Poster #1613 presented 7/25 @ 1:30-2:30pm	Arjun Singh Bhadoria†	The Effect of Zeolitic Acids on the Formation of Hydronium Ions in Liquid Water
Imran, Zainab	Poster #1207 presented 7/25 @ 10:30-11:30am	Olivia J Kurtz†	Techno-Economic Feasibility of Concurrent Megawatt and Dynamic Wireless Power Transfer Charging Infrastructure for Freight Vehicles along an Interstate Corridor
Isaac-Aragones, Debraliz	Talk #7008 presented 7/25 @ 9:20am	Fredrick G Mungai†	Predictive Modeling and Experimental Observation of a Small-Scale Two-Phase Loop Thermosyphon
Ivey, Paula-Marie	Poster #1035 presented 7/25 @ 9:00-10:00am	Tyler Merrill†	Membrane-Less Protein Condensates
Iyer-Pascuzzi, Anjali	Poster #1444 presented 7/25 @ 12:00-1:00pm	Shreya Joshy† Brooke Allison Pilkey‡ Silas Henry Buchanan‡	Investigating the Plant Immune Response to Ralstonia Exopolysaccharide
Iyer-Pascuzzi, Anjali	Poster #1651 presented 7/25 @ 1:30-2:30pm	Brooke Allison Pilkey† Shreya Joshy‡ Silas Henry Buchanan‡	Elucidation of Tomato Immune Responses in Response to Ralstonia Exopolysaccharides
Jagannathan, Suresh	Poster #1464 presented 7/25 @ 12:00-1:00pm	Kartavya Vashishtha†	Data Staleness in Irmin over Partial Quorum Databases
Jain, Anika	Talk #7065 presented 7/25 @ 1:20pm	Anouka Saha† David Huang‡ Tsukasa Nakamura‡ Joon Hong Park‡ Pranav Punuru‡	Protein Structure Modeling using Deep-Learning
Jain, Neera	Poster #1024 presented 7/25 @ 9:00-10:00am	Ilhoon Lee†	Online Updating of Cognitive State Models in Human-Automation Interaction
Jain, Neera	Poster #1639 presented 7/25 @ 1:30-2:30pm	Mason J Kramer†	Controls Design for Regulating Flow in a Single-phase Cooling Loop
Jain, Neera	Talk #7044 presented 7/25 @ 12:40pm	Nikolai Baranov†	Electric Vehicle (EV) Thermal System Design Optimization
Jain, Neera	Talk #7073 presented 7/25 @ 2:20pm	Tyler Harrison Hsieh†	Leveraging Real-Time Eye Tracking Metrics to Infer Cognitive States During Automated Driving
Jain, Neera	Talk #7089 presented 7/25 @ 3:40pm	Albert Li†	Enhancing Human Psychomotor Learning Through Real-Time Cognitive Feedback
Jaiswal, Natasha	Talk #7035 presented 7/25 @ 11:40am	John Ward Robbins†	"Metabolic Signaling and Skeletal Muscle Health: Investigating AKT Pathway Impacts on Neuromuscular Junction Plasticity"
Jajal, Purvish Jatin	Poster #1060 presented 7/25 @ 9:00-10:00am	Edward Falcon Navarro† Ryan Thomas Jordan* Tim Nadolsky* Ping-Hung Nick Ko* Caasi Nketiah Boakye* Minsoo Oh* Brian Mingyang Qi* Anthony Wang* Connor Bradley Frey*	Real-Time Voice Commands for Musical Accompaniment
Jajal, Purvish Jatin	Poster #1636 presented 7/25 @ 1:30-2:30pm	William P Jiang† Shrinand Perumal* Shivam Hemal Trivedi*	Enhancing Cello Performance through Real-Time Posture Evaluation



Summer 2024 Undergraduate Research Symposium: *List by Mentor*

Mentor Name	Presentation	Students	Title
Jajal, Purvish Jatin	Talk #7000 presented 7/25 @ 9:00am	Ryan Thomas Jordant Tim Nadolsky* Edward Falcon Navarro* Ping-Hung Nick Ko* Caasi Nketiah Boakye* Minsoo Oh* Brian Mingyang Qi* Anthony Wang* Connor Bradley Frey*	Real-Time Musical Accompaniment for Non-Improvised Music
Jamil, Ishat Raihan	Poster #1260 presented 7/25 @ 10:30-11:30am	Jack Rearden Ferlazzo†	Nanoscale 3D Printing using Two-Photon Lithography for Biomedical and Electronic Applications
Jayant, Krishna	Poster #1463 presented 7/25 @ 12:00-1:00pm	Andres Uzcateguit	Morphological characterization of anatomically defined Layer 5B pyramidal neuron subtypes
Jeevanandam, Sibibalan	Talk #7073 presented 7/25 @ 2:20pm	Tyler Harrison Hsieh†	Leveraging Real-Time Eye Tracking Metrics to Infer Cognitive States During Automated Driving
Jeon, Dayeon	Poster #1063 presented 7/25 @ 9:00-10:00am	Bea Olivia Cabot†	Repeatability of Cranial Morphometrics in the Pig
Jewell, Joseph S	Poster #1025 presented 7/25 @ 9:00-10:00am	Matthew S Leight† Eleanor Captola Hostetler‡	Shock Tube Experimentation and High-Speed Shock Wave Imaging of Atmospheric-Like Particles
Jiang,	Talk #7002 presented 7/25 @ 9:40am	Michael Cheng†	Contrastive Learning in Language Models for Software Vulnerability Detection
Jiang, Wen	Talk #7058 presented 7/25 @ 1:00pm	Maria Munoz Perez†	Image Recognition of Helical EMDB Structures
Jin, Guangzhen	Talk #9003 presented 7/25-8/01 virtually	Anjali Rajesh†	Open OnDemand Dashboard for Purdue's Anvil HPC Cluster
Jin, Guangzhen	Talk #9005 presented 7/25-8/01 virtually	Richie Tan†	Open OnDemand Dashboard Development for the Anvil Supercomputer
Johns, Cortland Hannah	Poster #1227 presented 7/25 @ 10:30-11:30am	Joslyn Renee Ferguson† Niharika Narra‡ John Patrick Salvas*	The Effects of the SGLT2 Inhibition on Cardiac Function in Mice with Duchenne Muscular Dystrophy
Johns, Cortland Hannah	Talk #7040 presented 7/25 @ 11:20am	Niharika Narra†	Thrombus Characterization in Abdominal Aortic Aneurysm and Aortic Dissection Models Using Histology and Scanning Electron Microscopy
Johnson, David R	Poster #1447 presented 7/25 @ 12:00-1:00pm	Manila Kunwar† Ruey-Bin Tsai‡ Junyeong Ahn‡	Characterization and Improvement of Vegetable Oils as Quenchants for Heat Treatment of Metals
Johnson, David R	Poster #1610 presented 7/25 @ 1:30-2:30pm	Junyeong Ahn† Manila Kunwar‡ Ruey-Bin Tsai‡	Characterization of Vegetable-Based Oils as Sustainable Quench Oil Replacements and Practicality Assessments
Johnson, Jason	Poster #1260 presented 7/25 @ 10:30-11:30am	Jack Rearden Ferlazzo†	Nanoscale 3D Printing using Two-Photon Lithography for Biomedical and Electronic Applications
Johnson, Mark	Poster #1600 presented 7/25 @ 1:30-2:30pm	William Rowan Cunningham† Maxwell Frank Michalec* Om Gupta* Fahad Aloufi*	Optimizing Vector Memory Accesses in a RISC-V Processor
Johnson, Mark	Poster #1605 presented 7/25 @ 1:30-2:30pm	Abhiram Saridena†	Implementation of RISC-V "K" extension for scalar cryptography
Johnson, Mark	Poster #1665 presented 7/25 @ 1:30-2:30pm	Indrayudh Chowdhury†	Verification of Interrupt Controller Using Universal Verification Methodology
Johnson, Mark	Talk #7080 presented 7/25 @ 2:40pm	Abhijay Achukola† Aniket Chatterjee†	Implementing Compressed Instructions in a RISC-V Microcontroller
Johnson, Mark	Talk #9016 presented 7/25-8/01 virtually	Justin Yasuumi† Yi-Hsuan Cheng†	A Command-Line Framework for AFTx07

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Mentor Name	Presentation	Students	Title
Johnson, Mark	Talk #9017 presented 7/25-8/01 virtually	Michael Jeffery Dick† William Milne‡	SoCET Memory System Development
Johnson, Mark	Talk #9027 presented 7/25-8/01 virtually	Akshath Raghav† Anas Abughali*	SoCET Zicond
Ju, Tingting	Poster #1417 presented 7/25 @ 12:00-1:00pm	Erica Ann Long†	Characterization of Prevotellaceae in the pig gut
Jun, Martin Byung-Guk	Poster #1267 presented 7/25 @ 10:30-11:30am	Vidit Hemal Patelt†	AI-powered data analysis and automation for smart manufacturing
Jung, Andreas	Poster #1234 presented 7/25 @ 10:30-11:30am	Isabella Freitas† Monique Mariae Morset†	Prospects for Quantum Entanglement at the High Luminosity Large Hadron Collider (HL-LHC)
Jung, Andreas	Poster #1457 presented 7/25 @ 12:00-1:00pm	Angie Catalina Parra Ovelencio† Pedro Daniel Soto Rodriguez‡	Multifunctional integrated cooling support structures for future HEP Silicon Tracker Detectors
Jung, Nusrat	Poster #1451 presented 7/25 @ 12:00-1:00pm	Minh An Nguyen Luu†	Laser Diffraction-Based Particle Size Distribution Analysis of Indoor Settled Dust
Kaboolian, Matthew	Poster #1270 presented 7/25 @ 10:30-11:30am	Evan R Williamst†	Interfacial Phase Behavior and Growth of Hexagonal Phase in Concentrated Lamellar Sodium Laureth Sulfate Solution and Cetostearyl Alcohol Crystal
Kalyanam, Rajesh	Talk #9003 presented 7/25-8/01 virtually	Anjali Rajesh†	Open OnDemand Dashboard for Purdue's Anvil HPC Cluster
Kalyanam, Rajesh	Talk #9005 presented 7/25-8/01 virtually	Richie Tan†	Open OnDemand Dashboard Development for the Anvil Supercomputer
Kant, Shivam	Poster #1064 presented 7/25 @ 9:00-10:00am	Christian A Durbin†	Deficits in nucleus accumbens activity are associated with social behavior deficits in Scn2a-deficient mice
Karava, Panagiota	Poster #1432 presented 7/25 @ 12:00-1:00pm	Pablo Cambra Valcarcel†	Performance Assessment of a Novel Wall-Embedded Micro Heat Pump for Radiant Heating in Buildings
Karcher, Darrin M	Poster #1071 presented 7/25 @ 9:00-10:00am	Rachel Elizabeth Kuhn† Abbilyne Nicole Eldert† Dylan Wade Seets†	Investigation of the yolk color differences with Orange Corn versus Yellow Corn within laying chickens.
Karcher, Darrin M	Poster #1075 presented 7/25 @ 9:00-10:00am	Dylan Wade Seets† Carl Anthony Kroger‡	Investigating the application of Reference Point Indentation as a possible tool to determine quality metrics for excised keel bones.
Karmarkar, Sushrut	Poster #1457 presented 7/25 @ 12:00-1:00pm	Angie Catalina Parra Ovelencio† Pedro Daniel Soto Rodriguez‡	Multifunctional integrated cooling support structures for future HEP Silicon Tracker Detectors
Katsamba, Ioanna	Poster #1634 presented 7/25 @ 1:30-2:30pm	Ricardo Andrews Huertas†	Biodegradable Hexagonal Boron Nitride Films for Bio-Inspired Radiative Cooling
Kaur, Simerdeep	Poster #1410 presented 7/25 @ 12:00-1:00pm	Anagha Gaitondet†	One-step Colorimetric Isothermal Detection of Live Foodborne Pathogens
Kaur, Upinder	Poster #1425 presented 7/25 @ 12:00-1:00pm	Rieko Simone Wilford† Alejandro Daza Gallo* Jihyo Park*	Revolutionizing Cattle Environmental Sustainability using Precision Monitoring
Kaur, Upinder	Poster #1650 presented 7/25 @ 1:30-2:30pm	Jihyo Park†	Adaptive Hopf Oscillator based Central Pattern Generator for autonomous operation of a Subterranean Robot with Whegs
Kaur, Upinder	Talk #7028 presented 7/25 @ 11:20am	Brian G Mmari†	Active Aerodynamic Tail Enhances Agile Locomotion of Legged Robots in Challenging Natural Environments
Kazemian, Majid	Talk #7084 presented 7/25 @ 3:00pm	Abigail Hyejin Lee†	Investigating the effects of ciclopirox and its derivatives on urothelial and renal cell carcinomas

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Mentor Name	Presentation	Students	Title
Kennell, Richard L	Talk #7105 presented 7/25 @ 4:00pm	Kayla Y. Xu†	Creating Programmable Home Radon Measurement
Kessler, Sharon A	Poster #1414 presented 7/25 @ 12:00-1:00pm	Molly Elizabeth Kosiba†	Phenotypic characterization of Arabidopsis MLO overexpression and mutant lines to determine the role of MLO proteins in plant development
Khan, Sameer Ullah	Poster #1217 presented 7/25 @ 10:30-11:30am	Juan Alberto Gomez-Solis† Isaiah K Mensah*	CTCF knockdown rescues the MAPK signaling pathway in Vezf1 null murine embryonic stem cells
Khattab, Dina Wael Samir	Poster #1638 presented 7/25 @ 1:30-2:30pm	Jake Kim†	Modeling of additive manufacturing powder for laser powder bed fusion applications.
Kihara, Daisuke	Talk #7065 presented 7/25 @ 1:20pm	Anouka Saha† David Huang‡ Tsukasa Nakamura‡ Joon Hong Park‡ Pranav Punuru‡	Protein Structure Modeling using Deep-Learning
Kihara, Daisuke	Talk #9023 presented 7/25-8/01 virtually	Pranav Punuru†	VIPER: An AI-Powered Conversational Interface for Integrated Protein Research and Structure Prediction
Kim, Daniel	Talk #7068 presented 7/25 @ 1:40pm	Conwy Zheng†	Neutrophil Motility Regulation by MiR-375 Target Gene ATP2b1
Kim, Dongseok	Poster #1476 presented 7/25 @ 12:00-1:00pm	Betsy Biju Varghese†	Exploring Proteome Allocation and Gene Transformation in Paramecium bursaria Photosymbiosis
Kim, Eunseob	Talk #7024 presented 7/25 @ 10:00am	Everett Mason†	Real-time manufacturing machine monitoring in edge analytics using electrical current consumption: Case study of plasma etcher operation and condition prediction
Kim, Garam	Poster #1019 presented 7/25 @ 9:00-10:00am	Hanhyun Kwak†	Closed-Loop Sustainability of 3D Printed Carbon Fiber Reinforced Composite Tooling.
Kim, Jeonghui	Poster #1026 presented 7/25 @ 9:00-10:00am	Chenyu Li†	Bulky phenylethyl-ammonium organic ligand for 2D perovskite nanowire growth
Kim, Ki Tae	Poster #1450 presented 7/25 @ 12:00-1:00pm	Ismael A Luna†	UGV IoT Deployment System
Kim, Kwang Taik	Poster #1225 presented 7/25 @ 10:30-11:30am	Ana Milena Espinosa Jimenez†	Latency, Velocity and Accuracy Evaluation of Classification Models on Edge Devices
Kim, Kwang Taik	Poster #1445 presented 7/25 @ 12:00-1:00pm	Basil Khwaja†	Real-Time Robotic Applications for Autonomous Driving, Drones, and Smart Manufacturing
Kim, Min Sung	Talk #7022 presented 7/25 @ 10:20am	Junhan Shen†	ARMS: Reconfigurable Microelectronic System for Autonomous Movement and Collaboration
Kim, Ted Taewook	Talk #7062 presented 7/25 @ 1:20pm	Nicholas Barmore†	Oligomerization of Light Olefins Using Aluminosilicate Catalysts
KIM, JONGGWANG	Talk #7102 presented 7/25 @ 4:00pm	Mathias Erik Bock Agerman†	Wireless Sensor Network Deployment in Contested and Denied Undersea Environments
Kinzer-Ursem, Tamara L	Poster #1462 presented 7/25 @ 12:00-1:00pm	Julia Janina Szela†	Laser-Induced Graphene Electrochemical Sensing for Low-Cost Point of Care Devices
Kinzer-Ursem, Tamara L	Poster #1467 presented 7/25 @ 12:00-1:00pm	Matthew T Zegarski†	Cleanroom-free Double Nanohole Plasmonic Biosensor Fabrication
Kircher, Kevin James	Poster #1263 presented 7/25 @ 10:30-11:30am	Liam Q Johnson† Lokesh Sriram* Benjamin Garrett Drillings* Levi Darian Reyes Premer*	Smart PV and Battery Control at the Purdue DC Nanogrid House

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Mentor Name	Presentation	Students	Title
Kirchmaier, Ann L	Poster #1416 presented 7/25 @ 12:00-1:00pm	Maxine Katya Kushnert†	Fumarase and the DNA Replication Stress Response
Kirk, Cody Dean	Poster #1454 presented 7/25 @ 12:00-1:00pm	Nicole Marie Maneatis†	Quartz Mechanical Characterization and Ballistic Impact Testing
Kolbinger, Fiona	Poster #1011 presented 7/25 @ 9:00-10:00am	Atin Dewan†	Surgical task classification using deep learning
Kolbinger, Fiona	Poster #1016 presented 7/25 @ 9:00-10:00am	Saloni Jajoo†	Pre-interventional complication risk stratification in patients undergoing percutaneous cardiac interventions
Kolbinger, Fiona	Poster #1644 presented 7/25 @ 1:30-2:30pm	Madison Sarah Loiselle†	Translational Deep Learning in Pathology: Evaluating Models for Ground Truth Prediction Across Species
Kolbinger, Fiona	Talk #7081 presented 7/25 @ 2:00pm	Farren M Martinus†	Cross-Species Analysis of Computational Laparoscopic Video Segmentation and Classification
Kondos, Kaitlyn Amber	Poster #1624 presented 7/25 @ 1:30-2:30pm	Miles T Davis†	Behavior of Steel-Plate Composite T-Shaped Connections
Koratikere, Pavankumar Channabasa	Poster #1459 presented 7/25 @ 12:00-1:00pm	Milan Edward Rahmani† Sota Yanagisawa‡	Validation and Analysis for Full Scale Avian Inspired Flapping Wing Aerial Vehicle (FWAV)
Koratikere, Pavankumar Channabasa	Talk #7011 presented 7/25 @ 9:20am	Sota Yanagisawa† Milan Edward Rahmani‡	Actuation strategy for an avian-inspired flapping-wing aerial vehicle (FWAV) to achieve stable flapping-gliding transition
Korde, Shrivatsa Shrirang	Poster #1034 presented 7/25 @ 9:00-10:00am	Aishwarya Menon†	Recovering Active Pharmaceutical Ingredients from Expired Drugs
Krushinski, Lynn Elizabeth	Talk #7004 presented 7/25 @ 9:20am	Amber K Wang†	Using Voltammetry to Probe Mass Transport in an Acoustically Levitated Droplet
Kuhn, Richard J	Talk #7039 presented 7/25 @ 11:00am	Sarah Jimenez Rojas†	Enhancing Transfection Efficiency of Hepatitis C Virus in Cell Culture
Kulkarni, Ritwik Vijaykumar	Poster #1405 presented 7/25 @ 12:00-1:00pm	Johan Martinez†	Degradation of Thermal Interface Materials From Thermal Cycling Experiments
Kung, Yk Hei Franki	Poster #1003 presented 7/25 @ 9:00-10:00am	Hannah Kim†	Racial Differences in Perceived Passion and Motivation: Exploring Antecedents for Asian and Asian American Dehumanization at Work
Kwizera, Ronard	Poster #1416 presented 7/25 @ 12:00-1:00pm	Maxine Katya Kushnert†	Fumarase and the DNA Replication Stress Response
Lai, Sean Yenyu	Poster #1259 presented 7/25 @ 10:30-11:30am	Rishipreet Singh Dhirt†	Micro- and Nano-Precision Testing On Low Temperature Solders
Lane, Quayannah	Poster #1200 presented 7/25 @ 10:30-11:30am	Aspen Arnold†	The New Mine: Navigating the Environmental Challenges of EV Battery Disposal
Lane, Quayannah	Poster #1201 presented 7/25 @ 10:30-11:30am	Daisey Briggs†	EVs for all: How Does Indiana's Plans for EV Charging Infrastructure Employ Equity?
Lane, Quayannah	Poster #1202 presented 7/25 @ 10:30-11:30am	Scott Edwards†	An Integrated Future: Developing Optimal EV Infrastructure in Urban Areas
Lane, Quayannah	Poster #1203 presented 7/25 @ 10:30-11:30am	Kaydence Hall†	Breathe EV: Centering Community Health in the Pursuit of EV Adoption in Indiana
Lane, Quayannah	Poster #1204 presented 7/25 @ 10:30-11:30am	Angelic Harris†	Charging Indiana: A Review Into Equitable Access to EV Charging Stations in Indiana
Lane, Quayannah	Poster #1205 presented 7/25 @ 10:30-11:30am	Jarrett Harris†	EV Innovation: Systematic review of EV battery impact in the last 20 years
Lane, Quayannah	Poster #1206 presented 7/25 @ 10:30-11:30am	Francisco Hurtado†	To BEV or not BEV: Comparing EV power sources ability to reduce the US's carbon footprint

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Mentor Name	Presentation	Students	Title
Lane, Quayannah	Poster #1211 presented 7/25 @ 10:30-11:30am	Daniel White†	The Hybrid Revolution: Steering the Path for EV Evolution
Lanham, Matthew	Talk #9019 presented 7/25-8/01 virtually	Rishita Korapati†	Predicting & Optimizing the Productivity of Garment Employees: A Novel Analytics Design to Improve Resource Allocation & Efficiency
Lanham, Matthew	Talk #9022 presented 7/25-8/01 virtually	Jizheng Li†	Predictive Maintenance in Drilling Operations: A Machine Learning Approach for Drill Bit Failure Prediction
Lanham, Matthew	Talk #9024 presented 7/25-8/01 virtually	Myeongin Wang†	Predictive Analysis of Seoul Bike Sharing Demand
Lanham, Matthew	Talk #9025 presented 7/25-8/01 virtually	Wei Yuan†	Predictive Maintenance to Reduce Machine Downtime
Laskin, Julia	Poster #1623 presented 7/25 @ 1:30-2:30pm	Wyatt Paul Crain†	Effect of Heteroatom Doping on the Size, Stability, and Electronic Properties of TM6E8(L)6 Nanoclusters
Lau, Holman	Poster #1055 presented 7/25 @ 9:00-10:00am	Thomas B Wooldridge†	Clean and Efficient Hybrid Propulsion System for Drones
Lee, Brian Hyun-jong	Talk #7036 presented 7/25 @ 11:00am	Stephen Brice Rider† Sabria Kionna Nesmith‡	Machine Learning Force Field for Ceramics at Extreme Conditions
Lee, Harry Kangseok	Poster #1019 presented 7/25 @ 9:00-10:00am	Hanhyun Kwak†	Closed-Loop Sustainability of 3D Printed Carbon Fiber Reinforced Composite Tooling.
Lee, Harry Kangseok	Poster #1655 presented 7/25 @ 1:30-2:30pm	Thomas Edgardo Schmitz† Armando David Galicia Huerta‡	Additive Manufacturing with Hybrid Continuous and Discontinuous Fiber Systems
Lee, Hojun	Poster #1643 presented 7/25 @ 1:30-2:30pm	Richard Li†	An Analytical Approach to Multifingered Grasp Synthesis
Lee, Hyowon	Poster #1065 presented 7/25 @ 9:00-10:00am	Deniz Eksioglu†	Electrochemical evaluation of PEDOT: PSS-coated electrodes for neural stimulation
Leifsson, Leifur Thor	Poster #1023 presented 7/25 @ 9:00-10:00am	Ian Laudo†	Optimal Climb Trajectory of a Reusable Testbed for Hypersonic Flight
Leifsson, Leifur Thor	Poster #1459 presented 7/25 @ 12:00-1:00pm	Milan Edward Rahmani† Sota Yanagisawa‡	Validation and Analysis for Full Scale Avian Inspired Flapping Wing Aerial Vehicle (FWAV)
Leifsson, Leifur Thor	Talk #7011 presented 7/25 @ 9:20am	Sota Yanagisawa† Milan Edward Rahmani‡	Actuation strategy for an avian-inspired flapping-wing aerial vehicle (FWAV) to achieve stable flapping-gliding transition
Leon-Salas, Walter Daniel	Poster #1456 presented 7/25 @ 12:00-1:00pm	Nicolas Miguel Murillo Cristancho† Nicolas Rendon Arias‡ Sehyeon Lim‡	DashBoard for automatic sensor measurements using LoRa, Chirpstack and web development
Leon-Salas, Walter Daniel	Poster #1671 presented 7/25 @ 1:30-2:30pm	Philo Jeremy Kaulkin† Andrew R Fox† Baquero Sanchez Gabriel Alejandro‡	Chicken Tracking: Self-Powered Optical Frequency Identification Tags for Use in Data-Driven Agriculture
Leon-Salas, Walter Daniel	Talk #7077 presented 7/25 @ 2:40pm	Nicolas Rendon Arias† Sehyeon Lim† Nicolas Miguel Murillo Cristancho†	Compost Bin Monitoring Through IoT
Leuschen-kohl, Rebecca Lynn	Poster #1444 presented 7/25 @ 12:00-1:00pm	Shreya Joshy† Brooke Allison Pilkey‡ Silas Henry Buchanan‡	Investigating the Plant Immune Response to Ralstonia Exopolysaccharide
Leuschen-kohl, Rebecca Lynn	Poster #1651 presented 7/25 @ 1:30-2:30pm	Brooke Allison Pilkey† Shreya Joshy‡ Silas Henry Buchanan‡	Elucidation of Tomato Immune Responses in Response to Ralstonia Exopolysaccharides
Levengood, Hannah Elizabeth	Poster #1246 presented 7/25 @ 10:30-11:30am	Diallo Thomas† Jing Huang* Ana Maria Orjuela Rodriguez*	Enhancing Plant Transformation through Agrobacterium tumefaciens

Student Role Notation: †Presenting Author, ‡Contributing Author, \*Acknowledgement

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Li, Can	Poster #1402 presented 7/25 @ 12:00-1:00pm	Zachary Rasmussen†	Optimizing Non-Sharp Distillation Column Sequence using Surrogate Physics-Informed Neural Network
Li, Christina W	Poster #1400 presented 7/25 @ 12:00-1:00pm	Errol B Alden†	Coke Formation on Catalysts
Li, Christina W	Talk #7085 presented 7/25 @ 3:20pm	Yiyin Tao†	Solution-Phase Intercalation of Metal Atoms into MoS <sub>2</sub>
Li, Daoyi	Talk #7058 presented 7/25 @ 1:00pm	Maria Munoz Perez†	Image Recognition of Helical EMDB Structures
Li, Jianing	Poster #1640 presented 7/25 @ 1:30-2:30pm	Shreya Krishnan†	Molecular Mechanisms of Adenylyl Cyclase-Calmodulin-Forskolin Binding in Adenylyl Cyclase 1
Li, Junfei	Talk #7013 presented 7/25 @ 10:00am	Yijie Zhang† Shaocheng Wu‡	Metamaterial-based Structures in Underwater Noise Mitigation for Offshore Wind Energy
Li, Junfei	Talk #7053 presented 7/25 @ 12:00pm	Shaocheng Wu† Yijie Zhang‡	Air-entrained Structure in Underwater Noise Mitigation for Offshore Wind Energy
Li, Pan	Talk #7107 presented 7/25 @ 4:40pm	Jack Patrick Rodgers†	Semi-Supervised Graph Neural Network for Pileup Mitigation
Li, Qingchun	Poster #1228 presented 7/25 @ 10:30-11:30am	Alexander Harman†	Evaluating Mobility Factors Under Extreme Heat
Li, Tian	Poster #1460 presented 7/25 @ 12:00-1:00pm	Paula Sanchez Ulloa†	Enhancing Bio-based Adhesive Performance for Sustainable Plywood: Optimizing Processing Pressure for Improved Mechanical Strength
Li, Tianyi	Talk #7095 presented 7/25 @ 3:40pm	Shreya S Venkat†	Multi-Agent Collaborative Sensemaking
Li, Tonglei	Talk #7070 presented 7/25 @ 2:20pm	Kyenret Yakubu Ayuba†	Learning Nucleation by Reversing It: A Molecular Dynamics Study of Amorphization of Organic Molecules
Li, Tonglei	Talk #7093 presented 7/25 @ 3:00pm	Olaoluwa Adegbohunbe† Ryan Thomas Jordan‡	Machine Learning Approaches to Predict Protein-Protein Interactions through Electrostatic Potential Mapping
Li, Xilai	Poster #1623 presented 7/25 @ 1:30-2:30pm	Wyatt Paul Crain†	Effect of Heteroatom Doping on the Size, Stability, and Electronic Properties of TM <sub>6</sub> E <sub>8</sub> (L) <sub>6</sub> Nanoclusters
LI, HUIYANG	Poster #1625 presented 7/25 @ 1:30-2:30pm	Haozhen Dong†	Differentiation of neutrophils for cancer cell killing assay
Liceaga, Andrea M	Poster #1421 presented 7/25 @ 12:00-1:00pm	Anja Chloe Owens†	Antioxidant Activity of Phenolic Compounds from <i>Chlorella vulgaris</i>
Lindemann, Stephen R	Poster #1444 presented 7/25 @ 12:00-1:00pm	Shreya Joshy† Brooke Allison Pilkey‡ Silas Henry Buchanan‡	Investigating the Plant Immune Response to <i>Ralstonia</i> Exopolysaccharide
Lindemann, Stephen R	Poster #1651 presented 7/25 @ 1:30-2:30pm	Brooke Allison Pilkey† Shreya Joshy‡ Silas Henry Buchanan‡	Elucidation of Tomato Immune Responses in Response to <i>Ralstonia</i> Exopolysaccharides
Linnes, Jacqueline	Talk #7016 presented 7/25 @ 10:00am	Akansha Chauhan†	Paper-Based Assay for Early Cervical Cancer Screening
liu, Miaoyuan	Talk #7091 presented 7/25 @ 3:20pm	Jack Patrick Rodgers†	Bumblebee: A self-supervised transformer model to learn top quark decay at the Large Hadron Collider
liu, Miaoyuan	Talk #7107 presented 7/25 @ 4:40pm	Jack Patrick Rodgers†	Semi-Supervised Graph Neural Network for Pileup Mitigation
Liu, Jing	Talk #7057 presented 7/25 @ 1:40pm	Ishaan Kartik Singh†	Rapid Widefield FLIM using a Single Photon Avalanche Diode Array
Liu, Julie C	Poster #1043 presented 7/25 @ 9:00-10:00am	Eliana Saavedra†	Synthesis Hydrogels with Chondroitin Sulfate and GQLY Peptide to Prevent Cartilage Degradation in Osteoarthritis



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Mentor Name	Presentation	Students	Title
Liu, Mintao	Poster #1670 presented 7/25 @ 1:30-2:30pm	Xinwan Hu†	Assessing Robustness in fMRI Connectome Identification: Effects of Scan Intervals and Distance Metrics
Liu, Yi Kai	Poster #1420 presented 7/25 @ 12:00-1:00pm	Nathaniel Merrick Miller†	Benchmarking Dimethyl Labeling-based Data-Independent Acquisition Pipelines for Extracellular Vesicle Proteomics and Phosphoproteomics
Long, Jiaxin	Poster #1220 presented 7/25 @ 10:30-11:30am	Andres Moran† Shelby Sliger‡ Joshua Paul Kaluf‡	Characterizing Chromatin Assembly Factor Capabilities of the ATP-dependent Chromatin Remodeler PICKLE (PKL) in Arabidopsis thaliana
Long, Jiaxin	Poster #1424 presented 7/25 @ 12:00-1:00pm	Elysia Marlena Uggen† Joshua Paul Kaluf‡ Shelby Sliger‡	Proximity Labeling to Identify Transient Protein Interactions with ATP-dependent Chromatin Remodeler PICKLE
Long, Jiaxin	Poster #1475 presented 7/25 @ 12:00-1:00pm	Amanda Renee Schoonmaker† Joshua T Stephenson‡	Investigating the Role of INO80 in H3K27me3 Homeostasis and Pickle Root Phenotype in Arabidopsis thaliana
Long, Jiaxin	Talk #7076 presented 7/25 @ 2:20pm	Shelby Sliger†	Characterizing the role of histone variant H2A.Z in heat-responsive gene expression in Arabidopsis thaliana
Lou, Yuan-Yao	Poster #1445 presented 7/25 @ 12:00-1:00pm	Basil Khwaja†	Real-Time Robotic Applications for Autonomous Driving, Drones, and Smart Manufacturing
Low, Megan Mei Yee	Talk #7079 presented 7/25 @ 2:20pm	William David Quintero Gallego†	Knowledge Representation Trends in Midwestern Community Food Maps
Low-Nam, Shalini T	Poster #1611 presented 7/25 @ 1:30-2:30pm	Alex James Alonzo† Jennifer Caraballo‡	Measurement of rare phosphoinositide lipids in Ras mutant cell membranes
Lu, Yung-Hsiang	Poster #1028 presented 7/25 @ 9:00-10:00am	Emma Lombardo†	AI in Music: Computer Transcription
Lu, Yung-Hsiang	Poster #1059 presented 7/25 @ 9:00-10:00am	Connor Bradley Frey† Ryan Thomas Jordan* Edward Falcon Navarro* Caasi Nketiah Boakye* Minsoo Oh* Tim Nadolsky* Ping-Hung Nick Ko* Brian Mingyang Qi* Anthony Wang*	User-Friendly Interface for Real-Time Musical Accompaniment
Lu, Yung-Hsiang	Poster #1060 presented 7/25 @ 9:00-10:00am	Edward Falcon Navarro† Ryan Thomas Jordan* Tim Nadolsky* Ping-Hung Nick Ko* Caasi Nketiah Boakye* Minsoo Oh* Brian Mingyang Qi* Anthony Wang* Connor Bradley Frey*	Real-Time Voice Commands for Musical Accompaniment
Lu, Yung-Hsiang	Poster #1636 presented 7/25 @ 1:30-2:30pm	William P Jiang† Shrinand Perumal* Shivam Hemal Trivedi*	Enhancing Cello Performance through Real-Time Posture Evaluation
Lu, Yung-Hsiang	Poster #1641 presented 7/25 @ 1:30-2:30pm	Elan Landau†	Artificial Intelligence in Music Transcription
Lu, Yung-Hsiang	Poster #1662 presented 7/25 @ 1:30-2:30pm	Richard Joseph Von Tersch† Samantha Sudhoff† Vinay Sai Meda‡	Robot Cello

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Mentor Name	Presentation	Students	Title
Lu, Yung-Hsiang	Talk #7000 presented 7/25 @ 9:00am	Ryan Thomas Jordant† Tim Nadolsky* Edward Falcon Navarro* Ping-Hung Nick Ko* Caasi Nketiah Boakye* Minsoo Oh* Brian Mingyang Qi* Anthony Wang* Connor Bradley Frey*	Real-Time Musical Accompaniment for Non-Improvised Music
Lu, Yung-Hsiang	Talk #7106 presented 7/25 @ 4:20pm	Sami Nasser Zaghat† Trent Michael Seaman† Ron K Natarajan‡ Daniel EnYi Yang‡ Nihar Pushkar Atri‡ Dinmukhamed Mukhtar Tynysbay‡	Evaluating Text/Image to 3D Mesh Models; A Comprehensive Overview
Lucht, Robert P	Talk #7031 presented 7/25 @ 11:20am	Brenden Michael Bush†	Design of a High-Pressure Counterflow Burner for Laser Diagnostic Technique Development
Luo, Junjie	Poster #1629 presented 7/25 @ 1:30-2:30pm	Alan Fu†	Developing Ultra Low Power Depth Sensing Through Differential Defocus
Lyon, Angeline M	Poster #1021 presented 7/25 @ 9:00-10:00am	Morgan Grace Laskowski†	Structural Studies of Phospholipase C Enzymes
Ma, Dizhi	Poster #1053 presented 7/25 @ 9:00-10:00am	Nishant Vasant† Haddy Elie Alchaer‡	Tracking the Trajectory and Spin Dynamics of a Table Tennis Ball
Ma, Jianxin	Poster #1245 presented 7/25 @ 10:30-11:30am	Adrian Muñoz†	Evaluation of the role of the Lateral Boundary Domain Transcription Factor GmLBD5 in Soybean Response to Sulfur Deficiency
Machiry, Aravind	Poster #1465 presented 7/25 @ 12:00-1:00pm	Gaurav Vermani†	C to Rust: Manual Conversion Methods and Standardized Dataset Creation
Mahmoudian, Nina	Poster #1446 presented 7/25 @ 12:00-1:00pm	Nils Kiefer†	AUV Retrieval Manipulator
Mahmoudian, Nina	Talk #7007 presented 7/25 @ 9:00am	Jhair Steven Gallego Mendez†	Mini-BREAM: A Low-Cost Modular Platform for Autonomous Surface Vehicle Testing
Maji, Amiya K	Talk #9004 presented 7/25-8/01 virtually	Alex Sieni†	Automating HPC Software Deployment
Maji, Amiya K	Talk #9006 presented 7/25-8/01 virtually	Jeffrey Winters†	Automating Research Software Deployment - PLENUM Pipeline
Mak, Nathan Timothy	Poster #1231 presented 7/25 @ 10:30-11:30am	Cora Jane Reynolds† Lail Shaw† Hallie Grace Jackson‡	Can Hemoglobin binding models be used to predict toxicity of mixtures of Forever Chemicals???
Mandal, Purba	Poster #1663 presented 7/25 @ 1:30-2:30pm	Akila Abeyaratna†	Investigating Early-Onset Neurodegeneration in Patients with Hereditary, Sensory, and Autonomic Neuropathy Type 1E (HSAN1E) Using 3D Cortical Organoids
Mannodi Kanakkithodi, Arun Kumar	Talk #7088 presented 7/25 @ 3:20pm	Anika Bhoopalam†	Novel Low-Bandgap Perovskites for Solar Cells Using a Computational and Experimental Approach
Marconnet, Amy M	Poster #1654 presented 7/25 @ 1:30-2:30pm	Sidney Evan Ryan† En-Hua Chang‡	Accurate Surface Temperature Collection for Lithium-Ion Batteries
Marconnet, Amy M	Talk #7032 presented 7/25 @ 11:40am	En-Hua Chang† Sidney Evan Ryan‡	Single Phase Static Immersive Cooling of Cylindrical Battery - Insight of Measuring Methods and Result
Marconnet, Amy M	Talk #7037 presented 7/25 @ 11:20am	Lindsay Kathryn Sutherland†	Impact of Slot Liner Compression and Wire Geometry on the Total Thermal Resistance in the Electric Motor's Stator- Winding Assembly

Summer 2024 Undergraduate Research Symposium: *List by Mentor*

Mentor Name	Presentation	Students	Title
Marlin, Makayla Nicole	Poster #1218 presented 7/25 @ 10:30-11:30am	Sara Bethany Victoria Habert	Investigating AD-induced Gmmt upregulation in Drosophila clock cells
Martinez, Carlos J	Poster #1470 presented 7/25 @ 12:00-1:00pm	Jiying Zou†	Fabrication of Temperature-sensitive Additives for PFAS-free Fire Fighting Foam Formulations
Martinez Sainz, Enrico	Poster #1223 presented 7/25 @ 10:30-11:30am	Mateo Colorado Zapata†	Catalytic Depolymerization of Lignin of Corn Stover and Sawdust for Medium-Density Fiberboard Production
Martinez-Guo, Zherui	Poster #1454 presented 7/25 @ 12:00-1:00pm	Nicole Marie Maneatis†	Quartz Mechanical Characterization and Ballistic Impact Testing
Martinez-Guo, Zherui	Talk #7101 presented 7/25 @ 4:40pm	Maya Araujo†	Catchment Chamber Design for the Ballistic Impact of Mesoscale Geo-Materials
Masdari, Mobina	Poster #1272 presented 7/25 @ 10:30-11:30am	Keeley Vonne Farmer†	The investigation and optimization of MIP-based PFAS sensing across sample matrices
Matosevic, Sandro	Poster #1050 presented 7/25 @ 9:00-10:00am	Drake William Strait†	Characterization and immunotherapeutic targeting of the tumor microenvironment
Mattoo, Seema	Poster #1254 presented 7/25 @ 10:30-11:30am	Shaye Ross†	In vitro Structural Characterization of the Secreted Brucella protein VceC (VirB coregulated effector C) reveals Diverse Multimeric States
McAdam, Scott	Poster #1418 presented 7/25 @ 12:00-1:00pm	Jonathan Michael Lut†	To Thirst or to Hunger: The Hydraulic Physiology of Drosera capensis
McCafferty, Reagan LiPing	Poster #1406 presented 7/25 @ 12:00-1:00pm	Dania M Zein†	Transitions Between Electron Emission Mechanisms in Semiconductors
McCarthy, Allison Kay	Talk #7059 presented 7/25 @ 1:20pm	Kristina Nicole Lodenquait†	Does Calcium/Calmodulin Protein Kinase II (CaMKII) Affect Sperm-Induced Actin Remodeling in Fertilized Mammalian Eggs?
McClain, Monique Suzanne	Poster #1440 presented 7/25 @ 12:00-1:00pm	Bryan Gong†	Powder Deposition for Polymer Bonded Explosives
McClain, Monique Suzanne	Poster #1452 presented 7/25 @ 12:00-1:00pm	Ellen Ma†	Mechanical Properties of UV Curable Polymer-Bonded Explosive Molding Powder
McKinney, Jason Dwight	Poster #1620 presented 7/25 @ 1:30-2:30pm	Ethan Chieng Chiao†	On-chip Phase Calibration Circuits With Integrated Photonic Bragg Gratings
Melican, Logan Jacob	Poster #1006 presented 7/25 @ 9:00-10:00am	Spasko Aleksov† Paige Alicia Greenfield* Xu Lu*	Machine Learning for Semiconductor Nanodevice Design
Melican, Logan Jacob	Poster #1264 presented 7/25 @ 10:30-11:30am	Xu Lu† Spasko Aleksov* Benjamin Charles Miller*	Machine Learning Support for Semiconductor Nanodevice Design
Mengiste, Tesfaye D	Poster #1244 presented 7/25 @ 10:30-11:30am	Jeremy Ledesma Vicioso† Abigail Grace Smith*	Responses of Sorghum Differentials to Colletotrichum Sublineola strain Cs29
Menon, Vinay K	Poster #1611 presented 7/25 @ 1:30-2:30pm	Alex James Alonzo† Jennifer Caraballo‡	Measurement of rare phosphoinositide lipids in Ras mutant cell membranes
Mesecar, Andrew D	Poster #1215 presented 7/25 @ 10:30-11:30am	Hillary English†	Characterizing sulfotransferase 2B1a and determining its effect in drug delivery
Mesecar, Andrew D	Poster #1219 presented 7/25 @ 10:30-11:30am	Emma Litzelman†	SHIP1 phosphatase as a Late-Onset Alzheimer's Disease therapeutic target
Metskas, Lauren Ann	Talk #7064 presented 7/25 @ 1:00pm	Richard Lawrence†	Quantifying Rubisco Polymerization within Carboxysomes
Metzger, Brian Patrick Ha	Poster #1066 presented 7/25 @ 9:00-10:00am	Michael David Gardner†	Wee Kinases, Tyrosine Phosphorylation, and what they tell us about Chance, Contingency, and Necessity in Evolution
Metzger, Brian Patrick Ha	Poster #1068 presented 7/25 @ 9:00-10:00am	Rachel Marie Isaact	Phylogenetic Reconstruction of the Evolution of One Instance of Tyrosine Kinase Activity

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Mentor Name	Presentation	Students	Title
Meyer, George W	Poster #1248 presented 7/25 @ 10:30-11:30am	Esperanza Zambrano†	Investigating the contribution of proteotoxicity to juglone's mechanism of action
Meyers, Brett A	Talk #7072 presented 7/25 @ 2:00pm	Kara Rochelle McCrindle†	In-vitro Assessment of Patient-Specific Cerebral Aneurysm Models for Hemodynamic Analysis using Particle Image Velocimetry and 4D Flow MRI
Michalec, Maxwell Frank	Poster #1665 presented 7/25 @ 1:30-2:30pm	Indrayudh Chowdhury†	Verification of Interrupt Controller Using Universal Verification Methodology
Michalec, Maxwell Frank	Talk #7080 presented 7/25 @ 2:40pm	Abhijay Achukola† Aniket Chatterjee†	Implementing Compressed Instructions in a RISC-V Microcontroller
Mildenhall, Frederick Isaac	Poster #1243 presented 7/25 @ 10:30-11:30am	Samantha Larest†	Three novel transcription factors in RAV2, C2H2, and HSF identified to play a key response on tomato during chilling stress
Miller, Jeffrey T	Poster #1403 presented 7/25 @ 12:00-1:00pm	Joyce M Rivera Sanchez†	Propylene hydrogenation by main group metal Ga+3 on SiO2 and Al2O3 supported catalysts
Miller, Jeffrey T	Talk #7062 presented 7/25 @ 1:20pm	Nicholas Barmore†	Oligomerization of Light Olefins Using Aluminosilicate Catalysts
Mitra, Harsa	Poster #1658 presented 7/25 @ 1:30-2:30pm	Madeline Jane Stevenson† Luhao Xu* Shlok Rajesh Kulkarni*	Development of Magnetic Bead-Based Active Microrheology Prototype for Probing and Measuring Mechanical Properties of Biological Matter
Moore Snyder, Jellie	Poster #1250 presented 7/25 @ 10:30-11:30am	Sarah Hong†	Screening Human Microbial Communities for Genotoxic Hydrogen Sulfide Production
Mousazadeh, Hossein	Talk #9018 presented 7/25-8/01 virtually	Shamari Garrett†	Analyzing Neighborhood Property Conditions in South Lafayette Neighborhood
Mukadam, Mrudula	Talk #7033 presented 7/25 @ 11:00am	Ishita Mukadam†	Advancing Wound Health Assessment Utilizing Curcuma Longa
Mukherjee, Partha P	Poster #1429 presented 7/25 @ 12:00-1:00pm	Trisha Boodhoo†	Physics and Analytics of Lithium Batteries
Mulim, Henrique Alberto	Poster #1224 presented 7/25 @ 10:30-11:30am	Alejandro Daza Gallo†	Genomic imputation and prediction analysis: Unraveling genetic variability in dairy cattle
Murdock, Benjamin Kyle	Talk #7031 presented 7/25 @ 11:20am	Brenden Michael Bush†	Design of a High-Pressure Counterflow Burner for Laser Diagnostic Technique Development
Nagy, Zoltan	Poster #1034 presented 7/25 @ 9:00-10:00am	Aishwarya Menon†	Recovering Active Pharmaceutical Ingredients from Expired Drugs
Nagy, Zoltan	Talk #7083 presented 7/25 @ 2:40pm	Urvi Mathur†	Development on Intensified Pharmaceuticals Manufacturing Processes
Narsimhan, Vivek	Poster #1442 presented 7/25 @ 12:00-1:00pm	Chi-En Huang†	Comparative Analysis of Methods for Measuring Mass Transfer Resistance (Rp) from Temperature in Lyophilized Formulations
Nelson, Cole Aaron	Poster #1600 presented 7/25 @ 1:30-2:30pm	William Rowan Cunningham† Maxwell Frank Michalec* Om Gupta* Fahad Aloufi*	Optimizing Vector Memory Accesses in a RISC-V Processor
Nelson, Cole Aaron	Poster #1605 presented 7/25 @ 1:30-2:30pm	Abhiram Saridena†	Implementation of RISC-V "K" extension for scalar cryptography
Nelson, Cole Aaron	Talk #7080 presented 7/25 @ 2:40pm	Abhijay Achukola† Aniket Chatterjee†	Implementing Compressed Instructions in a RISC-V Microcontroller
Nelson, Cole Aaron	Talk #9011 presented 7/25-8/01 virtually	Aishwarya Saikrupa Anand† Aryan M Kadakia† Benjamin Liming Zou‡	Improved Interrupt Controller Design for SoCET x08 Chip

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Mentor Name	Presentation	Students	Title
Nelson, Cole Aaron	Talk #9015 presented 7/25-8/01 virtually	tri Than† Brady Owen Philhower† Rauf Emre Erkiletlioglu† Gilbert Chang†	Chiplet Integration on PCB
Nelson, Cole Aaron	Talk #9016 presented 7/25-8/01 virtually	Justin Yasuumi† Yi-Hsuan Cheng†	A Command-Line Framework for AFTx07
Nelson, Samantha	Talk #7027 presented 7/25 @ 11:00am	Elliot Nick Brajkovich†	Using Machine Learning to Predict Thioesterase Cyclization Preference
Nguyen, Cuong Duc Calvin	Poster #1672 presented 7/25 @ 1:30-2:30pm	Maggie Kim†	Effect of Metal Ions on Tau Aggregation: A Study on Kinetics and Characterization
Nie, Linda	Poster #1601 presented 7/25 @ 1:30-2:30pm	Jessica Andrea Gray†	Study of Brain Metal Distributions and Interactions in Relation to Alzheimer's Pathogenesis Using Synchrotron X-ray Techniques
Nieforth, Leanne	Poster #1058 presented 7/25 @ 9:00-10:00am	Sophie Kaitlyn Stahl†	Pets at the desk: a systematic review on pets in the workplace
Noinaj, Nicholas	Poster #1251 presented 7/25 @ 10:30-11:30am	Jesus Noriega†	Structural characterization of a novel stapled peptide inhibitor bound to the BAM complex
Nolte, David D	Poster #1235 presented 7/25 @ 10:30-11:30am	Alexis Nicole Hensley†	Machine Learning Analysis of Seismic Coda Signals to Monitor Shear and Hydraulic Stimulation in Fractured Rock
Nonamaker, Evelyn Marie	Poster #1031 presented 7/25 @ 9:00-10:00am	Matthew William Margraft†	Quantitative Characterization of Cerebrospinal Fluid Electrolytes in Animal Models of Intrathecal Delivery
Nortz, Samuel Patrick	Poster #1273 presented 7/25 @ 10:30-11:30am	Sadie A Poirier† Yashvi Choudhary‡ Megan Leigh Hill* Keeley Vonne Farmer*	Silver leakage in commercially available and bipolar reference electrodes (BPRES): a TNBC toxicity study
Nunez ferro, Ivan Arturo	Poster #1275 presented 7/25 @ 10:30-11:30am	Janessa M Rieser† Chaoyi Hu†	Implementation of a Heat Recovery Chiller In A Solar Thermal Loop
Oakley, Christopher G	Talk #7001 presented 7/25 @ 9:20am	Santiago Reinoso Castillo†	The genetic basis of inflorescence architecture in Arabidopsis thaliana: implications for adaptation and maladaptation
Ogas, Joseph P	Poster #1220 presented 7/25 @ 10:30-11:30am	Andres Moran† Shelby Sliger‡ Joshua Paul Kaluff‡	Characterizing Chromatin Assembly Factor Capabilities of the ATP-dependent Chromatin Remodeler PICKLE (PKL) in Arabidopsis thaliana
Ogas, Joseph P	Poster #1424 presented 7/25 @ 12:00-1:00pm	Elysia Marlena Uggen† Joshua Paul Kaluff‡ Shelby Sliger‡	Proximity Labeling to Identify Transient Protein Interactions with ATP-dependent Chromatin Remodeler PICKLE
Ogas, Joseph P	Poster #1475 presented 7/25 @ 12:00-1:00pm	Amanda Renee Schoonmaker† Joshua T Stephenson‡	Investigating the Role of INO80 in H3K27me3 Homeostasis and Pickle Root Phenotype in Arabidopsis thaliana
Ogas, Joseph P	Talk #7076 presented 7/25 @ 2:20pm	Shelby Sliger†	Characterizing the role of histone variant H2A.Z in heat-responsive gene expression in Arabidopsis thaliana
Ogawa, Sienna Tsuruko	Poster #1414 presented 7/25 @ 12:00-1:00pm	Molly Elizabeth Kosiba†	Phenotypic characterization of Arabidopsis MLO overexpression and mutant lines to determine the role of MLO proteins in plant development
Ogg, James G	Talk #9013 presented 7/25-8/01 virtually	Kevin Ming Chang† Sabrina Chang‡ Aditya Krishnan Sivathanu‡	Geolex: Cloud-based Public Database of Global Geologic Formations
Okoye, Pascal Chukwuebuk	Poster #1244 presented 7/25 @ 10:30-11:30am	Jeremy Ledesma Vicioso† Abigail Grace Smith*	Responses of Sorghum Differentials to Colletotrichum Sublineola strain Cs29

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Mentor Name	Presentation	Students	Title
Olek, Jan	Poster #1018 presented 7/25 @ 9:00-10:00am	Ali Kalmagambetov†	Utilizing alternative air-entraining methods to enhance freeze-thaw durability of concrete with incorporated nanomaterials.
Olek, Jan	Talk #7015 presented 7/25 @ 10:40am	Anel Zhussupbekova† Raikhan Tokpatayeva*	Synergetic Effect of Nanosilica Admixtures and Nontraditional Natural Pozzolans on Hydration Kinetics of Cementitious Systems
Olson, Jacob Mark	Poster #1411 presented 7/25 @ 12:00-1:00pm	Gage Ryan Edward Gottman†	Metabolite extraction and analysis of High Chlorophyll Fluorescence (HCF) in Sorghum mutants
Organski, Lee E	Talk #7043 presented 7/25 @ 12:20pm	Mathis Malaussena†	Design and Implementation of an Inductively Coupled Plasma Neutralizer for SPT-100 Hall Thruster
Osorio Pinzon, Juan Camilo	Talk #7082 presented 7/25 @ 2:20pm	Paul A Loughlin†	Flexible Mechanical Sensors
Ospina Larrea, Ana Maria	Talk #7048 presented 7/25 @ 12:00pm	Isabella Wyatt†	Singing in the Anthropocene: Evaluating Anuran Call Signal Transmission in Urban Environments
Ospina Larrea, Ana Maria	Talk #7086 presented 7/25 @ 3:40pm	Jabez Soongeui Shin† Adriana Bustos Torres‡	Effect of artificial light at night (ALAN) and traffic noise on anuran communication
Ozerov, Stepan	Poster #1009 presented 7/25 @ 9:00-10:00am	Marie Emilie Charbonniert†	Radon Detection : A novel method using Centrifugally Tensioned Metastable Fluid Detector
Ozerov, Stepan	Poster #1448 presented 7/25 @ 12:00-1:00pm	Qi Heng Law†	Novel neutron-gamma radiation detectors based on PLA biopolymer detector (PLAD) sensor technologies.
Ozerov, Stepan	Poster #1653 presented 7/25 @ 1:30-2:30pm	Abhishek Raj†	Identifying Radiation Particles through Acoustic Shock Signals: A Deep Learning Perspective
Pare, Philip Eugene	Poster #1039 presented 7/25 @ 9:00-10:00am	Andy Nguyen†	Autonomous Taxiing System
Pare, Philip Eugene	Poster #1431 presented 7/25 @ 12:00-1:00pm	Zarif Cabrera†	Tracking Controllers For Autonomous Aircraft Taxiing
Park, Daniel	Poster #1240 presented 7/25 @ 10:30-11:30am	Holly Gustavsen†	Modeling buffalograss phenology as a response to climate change
Park, Hye Lin	Poster #1242 presented 7/25 @ 10:30-11:30am	Molly Kubal†	Differential Roles of ACS Enzyme Isoforms in Ethylene-Mediated Abiotic Stress Responses in Arabidopsis thaliana
Park, Jae Young	Poster #1065 presented 7/25 @ 9:00-10:00am	Deniz Eksioglu†	Electrochemical evaluation of PEDOT: PSS-coated electrodes for neural stimulation
Park, Sunghee	Poster #1626 presented 7/25 @ 1:30-2:30pm	Abigail J Dressman†	Using Organoids as a Model System to Study Intestinal Epithelial Growth and Morphogenesis
Parkinson, Elizabeth I	Talk #7027 presented 7/25 @ 11:00am	Elliot Nick Brajkovich†	Using Machine Learning to Predict Thioesterase Cyclization Preference
Paspalaki, Garyfallia	Talk #7107 presented 7/25 @ 4:40pm	Jack Patrick Rodgers†	Semi-Supervised Graph Neural Network for Pileup Mitigation
Pasternak, Jonathan	Poster #1063 presented 7/25 @ 9:00-10:00am	Bea Olivia Cabot†	Repeatability of Cranial Morphometrics in the Pig
Pasternak, Jonathan	Poster #1409 presented 7/25 @ 12:00-1:00pm	Samantha Teal Fairchild†	Effects of Intrauterine Growth Restriction (IUGR) on Pre-Weaning Performance in Swine
Pasternak, Jonathan	Poster #1666 presented 7/25 @ 1:30-2:30pm	Chiara Isabella Gibboney†	Understanding the Acute Hematological Impact of Intrauterine Growth Retardation in Swine



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Mentor Name	Presentation	Students	Title
Patel, Mayank Harendra	Poster #1007 presented 7/25 @ 9:00-10:00am	Rishika Bera†	PrimerCurator: An LLM Powered Multimedia Educational Content Design and Creation Tool
Patel, Rishi	Talk #7051 presented 7/25 @ 12:20pm	Jaralynn Morellano†	Structural basis of nanobody inhibition of UCH37
Patel, Timir Rajendra	Poster #1261 presented 7/25 @ 10:30-11:30am	Nicolas Gieseemann†	Testing and Validation of High-Efficiency Hydraulic System for Off-Road Vehicles
Patil, Samruddhi Moreshwar	Poster #1033 presented 7/25 @ 9:00-10:00am	Joseph Mayer†	The Effect of Statistical Sequence Control on PLGA Degradation in Langmuir Monolayers
Patra, Satya Sundar	Poster #1451 presented 7/25 @ 12:00-1:00pm	Minh An Nguyen Luu†	Laser Diffraction-Based Particle Size Distribution Analysis of Indoor Settled Dust
Pergantis, Elias Nikolaos	Poster #1263 presented 7/25 @ 10:30-11:30am	Liam Q Johnson† Lokesh Sriram* Benjamin Garrett Drillings* Levi Darian Reyes Premer*	Smart PV and Battery Control at the Purdue DC Nanogrid House
Peroulis, Dimitrios	Poster #1614 presented 7/25 @ 1:30-2:30pm	Jose Abraham Bolanos Vargas†	Automated Testing Toolbox for Power Amplifiers and Antennas in Communication Systems
Peters, Ryan George	Talk #7039 presented 7/25 @ 11:00am	Sarah Jimenez Rojas†	Enhancing Transfection Efficiency of Hepatitis C Virus in Cell Culture
Pham, Khai Quynh Tien	Poster #1672 presented 7/25 @ 1:30-2:30pm	Maggie Kim†	Effect of Metal Ions on Tau Aggregation: A Study on Kinetics and Characterization
Pienaar, Elsje	Talk #7097 presented 7/25 @ 3:20pm	Tyler S Dierckman†	Pharmacokinetic and Pharmacodynamic Assessment of Tigecycline Treatment for Nontuberculous Mycobacterium Infections
Pike, Hannah	Poster #1602 presented 7/25 @ 1:30-2:30pm	Riley James Robert Madden†	Evaluating the Radiation-Hardness of Varying COTS EEPROMs in a Thermal Neutron Environment
Pike, Hannah	Poster #1607 presented 7/25 @ 1:30-2:30pm	Parker Smith†	Assessment of Composite Materials for Radiation Protection using OpenMC Simulations
Pike, Hannah	Poster #1608 presented 7/25 @ 1:30-2:30pm	Kailyn D Steed†	Composite Material Development for Simultaneously Shielding Neutron and Gamma Radiation
Pikes, Tyler Renee	Poster #1012 presented 7/25 @ 9:00-10:00am	Sofia Victoria Duran Quiroga†	THE EFFECTS OF IL-17/ACT1 SIGNALING ON INNATE IMMUNE CELLS
Pipes, R Byron	Poster #1472 presented 7/25 @ 12:00-1:00pm	Armando David Galicia Huerta† Thomas Edgardo Schmitz‡	Hybrid Printing with Continuous and Discontinuous fibers
Pollei, Thomas J	Poster #1268 presented 7/25 @ 10:30-11:30am	Carolyn Sun†	Simulation of Membrane Deflection Response to Temporally Impulsed Optical Pressure
Porterfield, D. Marshall	Poster #1423 presented 7/25 @ 12:00-1:00pm	Grace Anne Stanton†	Nepenthes on a Cellular and Biomolecular Level
Porterfield, D. Marshall	Talk #7087 presented 7/25 @ 3:00pm	Simone Xin Moulton† Adriana K Sanchez*	Mycoponics: Advanced hydroponics technology for production of mycelial leather
Proctor, Caitlin Rose	Poster #1422 presented 7/25 @ 12:00-1:00pm	Katie Nicole Smith†	Effect of Long-Term System Disuse on Pipe Wall Biofilms
Proctor, Caitlin Rose	Poster #1645 presented 7/25 @ 1:30-2:30pm	Mallory A Luse†	Designing Methods for Generating PVC-coated Magnetic Beads for High-throughput Microbiome Propagation
Proctor, Caitlin Rose	Poster #1647 presented 7/25 @ 1:30-2:30pm	Lillian Grace Maldia†	Characterizing Microbial Water Quality in Rural Wells
Proctor, Caitlin Rose	Talk #7046 presented 7/25 @ 12:20pm	Salomon Caro Castillo†	Effect of different microbial inoculum over bacterial colonization and biofilm formation in basil ( <i>Ocimum basilicum</i> ) hydroponics.

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Mentor Name	Presentation	Students	Title
Pyrak-Nolte, Laura J	Poster #1233 presented 7/25 @ 10:30-11:30am	Erin Duell†	Wave Propagation in a Simple Fracture Network
Pyrak-Nolte, Laura J	Poster #1235 presented 7/25 @ 10:30-11:30am	Alexis Nicole Hensley†	Machine Learning Analysis of Seismic Coda Signals to Monitor Shear and Hydraulic Stimulation in Fractured Rock
Pyrak-Nolte, Laura J	Poster #1236 presented 7/25 @ 10:30-11:30am	Reagan John Thompson†	Shearing Fracture Networks
Pyrak-Nolte, Laura J	Poster #1255 presented 7/25 @ 10:30-11:30am	Ozan Altuntas†	Investigation of the Formation of Fracture Intersection Geometry
Qazi, Taimoor Hasan	Poster #1262 presented 7/25 @ 10:30-11:30am	Kyle Jeffery Heaton†	Investigating fibroblast response to porous hydrogel implantation in a mouse model of volumetric muscle loss.
Qazi, Taimoor Hasan	Poster #1434 presented 7/25 @ 12:00-1:00pm	Zhiyuan Chen†	Hydrolytically Degradable Hyaluronic Acid Hydrogels for Biomedical Applications
Qiao, Li	Poster #1055 presented 7/25 @ 9:00-10:00am	Thomas B Wooldridge†	Clean and Efficient Hybrid Propulsion System for Drones
Qiao, Li	Poster #1256 presented 7/25 @ 10:30-11:30am	Ishaan Breinig†	Evaluation of Flammability Mitigation in Lithium-Ion Batteries Using Phosphorous-Based Electrolyte Additives
Qu, Ming	Talk #7105 presented 7/25 @ 4:00pm	Kayla Y. Xu†	Creating Programmable Home Radon Measurement
Qu, Zihan	Talk #7111 presented 7/25 @ 4:40pm	Levi M Johnson†	Discovery of the First-in-class SHP1 Covalent Inhibitor for Cancer Immunotherapy
Quinn, Daniel	Poster #1441 presented 7/25 @ 12:00-1:00pm	Solomon J Houchen†	Summer 2024 Research Assistance: Corn Sampling
Qureshi, Ahmed Hussain	Talk #7104 presented 7/25 @ 4:40pm	Junyoung Kim†	Robust-object-retrieval-via-manipulation
Rahman, Md Ashiqur	Poster #1054 presented 7/25 @ 9:00-10:00am	Lily Avery Waterman†	Fabrication of Thermally Insulative Membranes for Dehumidification
Rajendran, Sathish	Poster #1046 presented 7/25 @ 9:00-10:00am	Nistha Shrestha†	Efficient and Selective Removal of Arsenic Variants from Drinking Water
Ramani, Karthik	Poster #1007 presented 7/25 @ 9:00-10:00am	Rishika Bera†	PrimerCurator: An LLM Powered Multimedia Educational Content Design and Creation Tool
Ramani, Karthik	Poster #1053 presented 7/25 @ 9:00-10:00am	Nishant Vasant† Haddy Elie Alchaer‡	Tracking the Trajectory and Spin Dynamics of a Table Tennis Ball
Ramesh, Manu	Poster #1265 presented 7/25 @ 10:30-11:30am	Jiawen Lyu†	Auto Retrieval of Specific Cows from Unlabeled Videos
Ramirez Gutierrez, Diana Milena	Talk #7063 presented 7/25 @ 1:40pm	Mahagani Lasciers†	Significance of Corn Stover Fermentable Sugars on Oxalic Acid Production by <i>Aspergillus niger</i> Fermentation
Ramkrishna, Doraiswami	Talk #7070 presented 7/25 @ 2:20pm	Kyenret Yakubu Ayuba†	Learning Nucleation by Reversing It: A Molecular Dynamics Study of Amorphization of Organic Molecules
Raturi, Ankita	Talk #7079 presented 7/25 @ 2:20pm	William David Quintero Gallego†	Knowledge Representation Trends in Midwestern Community Food Maps
Raudabaugh, Daniel B	Poster #1062 presented 7/25 @ 9:00-10:00am	Lane Bell† Bryan Reyes‡	Examining Diversity Trends of Co-Infectious Organisms within Native Indiana Rust
Raudabaugh, Daniel B	Poster #1274 presented 7/25 @ 10:30-11:30am	Bryan Reyes† Lane Bell‡	Investigating Leotiomyces from Indiana Aquatic Ecosystems
Raut, Bibek	Poster #1045 presented 7/25 @ 9:00-10:00am	Neelesh Sarathy†	Pig Behavior Recognition using Machine Learning
Reibman, Amy R	Poster #1265 presented 7/25 @ 10:30-11:30am	Jiawen Lyu†	Auto Retrieval of Specific Cows from Unlabeled Videos
Reimer, Torsten	Talk #7094 presented 7/25 @ 3:20pm	Meghna Swaminathan†	SAI: Integrating Cognitive, Social, and Engineering Principles for Large-scale Planning of Public Charging Infrastructure

Summer 2024 Undergraduate Research Symposium: *List by Mentor*

Mentor Name	Presentation	Students	Title
Reklaitis, Gintaras	Poster #1034 presented 7/25 @ 9:00-10:00am	Aishwarya Menon†	Recovering Active Pharmaceutical Ingredients from Expired Drugs
Ren, Hanwen	Talk #7104 presented 7/25 @ 4:40pm	Junyoung Kim†	Robust-object-retrieval-via-manipulation
Reppert, Michael Earl	Poster #1232 presented 7/25 @ 10:30-11:30am	Ana Colliton† Bryan Borosky‡	Classical to Quantum: Two-Dimensional Acoustic Spectroscopy
Reppert, Michael Earl	Talk #7017 presented 7/25 @ 10:20am	Tristen M West†	Complete Characterization of Isotope-enriched Proteins to Improve Vibrational Spectroscopy Simulations
Richards, Alyssa Marine	Poster #1227 presented 7/25 @ 10:30-11:30am	Joslyn Renee Ferguson† Niharika Narra‡ John Patrick Salvas*	The Effects of the SGLT2 Inhibition on Cardiac Function in Mice with Duchenne Muscular Dystrophy
Richards, William Stephen	Poster #1602 presented 7/25 @ 1:30-2:30pm	Riley James Robert Madden†	Evaluating the Radiation-Hardness of Varying COTS EEPROMs in a Thermal Neutron Environment
Rishabh, Kumar	Poster #1050 presented 7/25 @ 9:00-10:00am	Drake William Strait†	Characterization and immunotherapeutic targeting of the tumor microenvironment
Ristroph, Kurt	Poster #1436 presented 7/25 @ 12:00-1:00pm	Luke DeLion†	Formulation Engineering to Improve Drug Dissolution Kinetics in GI Tract
Ristroph, Kurt	Talk #7056 presented 7/25 @ 1:20pm	Katy Brauer†	Dry Direct Flash NanoPrecipitation for integrated high-throughput nanoparticle powder preparation
Ro, Bohyun	Poster #1461 presented 7/25 @ 12:00-1:00pm	Paul William Swift†	Long-term Effects of Repeated, Episodic Heat Exposure on Cardiac Structure and Function in Aged, Obese Mice
Roach, Mikayla Angelique	Poster #1048 presented 7/25 @ 9:00-10:00am	Shreya Sinha†	Alterations in Extracellular Matrix Gene Expression Resulting from Nonequibiaxial Cyclic Stretch of Synoviocytes
Rochet, Jean-christophe	Poster #1668 presented 7/25 @ 1:30-2:30pm	Jacob Gold†	Protective Effects of Polyphenols Against Alpha-Synuclein Aggregation in a Cellular PFF Model of Parkinson's Disease
Rodenbeck, Sarah	Talk #9002 presented 7/25-8/01 virtually	Austin Riley Lovell† Philip Wisniewski†	AI-Powered Operational Data Analytics: Predicting Job Queue Times on ANVIL
Rodenbeck, Sarah	Talk #9007 presented 7/25-8/01 virtually	Philip Wisniewski† Austin Riley Lovell†	AI-Powered Operational Data Analytics: Predicting Job Queue Times on ANVIL
Rogers, Abigail Keelin	Poster #1238 presented 7/25 @ 10:30-11:30am	Elise Bennett†	Functionally Characterizing RipUK60, a Type III Effector of Ralstonia solanacearum
Rojas de Oliveira, Hinayah	Poster #1224 presented 7/25 @ 10:30-11:30am	Alejandro Daza Gallo†	Genomic imputation and prediction analysis: Unraveling genetic variability in dairy cattle
Rojas de Oliveira, Hinayah	Poster #1425 presented 7/25 @ 12:00-1:00pm	Rieko Simone Wilford† Alejandro Daza Gallo* Jihyo Park*	Revolutionizing Cattle Environmental Sustainability using Precision Monitoring
Rojas Gutierrez, Juan Diego	Talk #7001 presented 7/25 @ 9:20am	Santiago Reinoso Castillo†	The genetic basis of inflorescence architecture in Arabidopsis thaliana: implications for adaptation and maladaptation
Roldan Carvajal, Mateo	Poster #1630 presented 7/25 @ 1:30-2:30pm	Zhichen Guan†	Investigation of ionocaloric refrigeration cycle: Thermodynamic model analysis and proof of concept
Rosenberger, Joanna Marie	Poster #1400 presented 7/25 @ 12:00-1:00pm	Errol B Alden†	Coke Formation on Catalysts
Ruan, Xiulin	Poster #1634 presented 7/25 @ 1:30-2:30pm	Ricardo Andrews Huertas†	Biodegradable Hexagonal Boron Nitride Films for Bio-Inspired Radiative Cooling
Saad, Shams	Poster #1277 presented 7/25 @ 10:30-11:30am	Zack Kynert†	Analysis of Cytoskeleton Remodeling in Egg-to-Embryo Transition
Sahoo, Anmol	Poster #1464 presented 7/25 @ 12:00-1:00pm	Kartavya Vashishtha†	Data Staleness in Irmin over Partial Quorum Databases

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Mentor Name	Presentation	Students	Title
Sakkarai Mohamed, Asha Parveen	Poster #1005 presented 7/25 @ 9:00-10:00am	Sebastian Rosario Torres† Monika Malik‡	Anti-Cancer Potential of NR07: A Novel Indole-based chalcone Derivative Targeting ROS-Mediated Apoptosis and Tubulin Dynamics
Saldivar Carranza, Enrique Daniel	Poster #1051 presented 7/25 @ 9:00-10:00am	Vihaan Vajpayee† Andrew Joseph Thompson*	Evaluating Intersection Safety through Hard Braking Events: A Comparative Analysis of Signalized Intersections, Roundabouts, and All-Way Stops Using Connected Vehicle Data
Saldivar Carranza, Enrique Daniel	Poster #1269 presented 7/25 @ 10:30-11:30am	Andrew Joseph Thompson† Vihaan Vajpayee*	Evaluating the Use of LiDAR Traffic Data for Assessing Infrastructure
Salem, Abdelrahman	Poster #1035 presented 7/25 @ 9:00-10:00am	Tyler Merrill†	Membrane-Less Protein Condensates
Salome Rivera, Diamarys	Talk #7061 presented 7/25 @ 1:00pm	Nina A Borkowski† Talana N Small‡	Synthetic methods to control Al siting and crystallite size in MFI zeolites for propene oligomerization
Sankaranarayanan, Karthik	Poster #1415 presented 7/25 @ 12:00-1:00pm	Joel Jenson Kuriakose†	Predicting binding of NADPH/ NADH family of Cofactors to Enzymes Using Machine Learning
Sankaranarayanan, Karthik	Talk #7103 presented 7/25 @ 4:20pm	Adam G Webert†	Data-Driven Insights into Enzyme Reaction Catalysis for Green Chemistry
Santiago Vargas, Alex David	Poster #1614 presented 7/25 @ 1:30-2:30pm	Jose Abraham Bolanos Vargast†	Automated Testing Toolbox for Power Amplifiers and Antennas in Communication Systems
Sathar, Bazil Muhammed	Poster #1073 presented 7/25 @ 9:00-10:00am	Isabel M Owens†	Synthesizing Functionalized Pillarenes for Precision Polymer Synthesis
Savoie, Brett	Poster #1014 presented 7/25 @ 9:00-10:00am	Anja Hribljan† Daniel Sich‡	Spectral Deconvolution Models for Interpreting Reaction Outcomes
Savoie, Brett	Poster #1047 presented 7/25 @ 9:00-10:00am	Daniel Sich† Anja Hribljan‡	Spectral Deconvolution Models for Interpreting Reaction Outcomes
Savoie, Brett	Talk #7009 presented 7/25 @ 9:40am	Aakarsh Misra†	Large Property Models for Predictive Chemistry
Schaekel, Isabelle Kathryn	Poster #1030 presented 7/25 @ 9:00-10:00am	Uyen Linh Ly†	Development of Water-Resistant Adhesives by Adding Proteins to a Bio-Based Epoxy System
Schepers, Luke	Poster #1461 presented 7/25 @ 12:00-1:00pm	Paul William Swift†	Long-term Effects of Repeated, Episodic Heat Exposure on Cardiac Structure and Function in Aged, Obese Mice
Schmitt, Douglas R	Poster #1001 presented 7/25 @ 9:00-10:00am	Angee Paola Lopera Restrepo† Wayne Wheeler Kottkamp‡	Constraining tectonic stresses in the scandinavian caledonides
Schneebeli, Severin Thomas	Poster #1073 presented 7/25 @ 9:00-10:00am	Isabel M Owens†	Synthesizing Functionalized Pillarenes for Precision Polymer Synthesis
Schneebeli, Severin Thomas	Poster #1612 presented 7/25 @ 1:30-2:30pm	Sho Amagai† Levi M Johnson†	Versatile Covalent Molecular Cages: From Synthesis to Therapeutic Applications
Schofield, Andrew Bartlett	Poster #1014 presented 7/25 @ 9:00-10:00am	Anja Hribljan† Daniel Sich‡	Spectral Deconvolution Models for Interpreting Reaction Outcomes
Schofield, Andrew Bartlett	Poster #1047 presented 7/25 @ 9:00-10:00am	Daniel Sich† Anja Hribljan‡	Spectral Deconvolution Models for Interpreting Reaction Outcomes
Schultz, Kelly	Poster #1027 presented 7/25 @ 9:00-10:00am	En-tsz Liu†	Molecular Release Experiments from Micro-fibrillated Cellulose
Seetharaman, Sivaranjani	Poster #1633 presented 7/25 @ 1:30-2:30pm	Hsin-Wei Hsieh†	Optimizing the Transition to Clean Energy in the US MISO Region Power Grid
Sekiya, Ryoh-suke	Poster #1613 presented 7/25 @ 1:30-2:30pm	Arjun Singh Bhadoria†	The Effect of Zeolitic Acids on the Formation of Hydronium Ions in Liquid Water
Sepulveda, Maria Soledad	Poster #1231 presented 7/25 @ 10:30-11:30am	Cora Jane Reynolds† Lail Shaw† Hallie Grace Jackson‡	Can Hemoglobin binding models be used to predict toxicity of mixtures of Forever Chemicals???

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Mentor Name	Presentation	Students	Title
Seshadri, Akul	Poster #1036 presented 7/25 @ 9:00-10:00am	Logan Mick†	The Influence of a Novel Hydrogel Composition on Mechanical Properties of High-Performance Mortar
Sethu Viji, Rudra	Talk #7072 presented 7/25 @ 2:00pm	Kara Rochelle McCrindle†	In-vitro Assessment of Patient-Specific Cerebral Aneurysm Models for Hemodynamic Analysis using Particle Image Velocimetry and 4D Flow MRI
Sexton, Joshua	Talk #7030 presented 7/25 @ 11:00am	Makayla Nicole Phillips†	Automated Histomorphological Assessment of Muscle Health and Healing in a Preclinical Volumetric Muscle Loss Model
Shah, Kavita	Poster #1005 presented 7/25 @ 9:00-10:00am	Sebastian Rosario Torres† Monika Malik‡	Anti-Cancer Potential of NR07: A Novel Indole-based chalcone Derivative Targeting ROS-Mediated Apoptosis and Tubulin Dynamics
Shakouri, Ali	Talk #7024 presented 7/25 @ 10:00am	Everett Mason†	Real-time manufacturing machine monitoring in edge analytics using electrical current consumption: Case study of plasma etcher operation and condition prediction
Shan, Nannan	Talk #9000 presented 7/25-8/01 virtually	Nihar Kodkani† Selina Lin‡	Molecular Chemistry Gateway: Developing Open OnDemand Applications for Purdue's Anvil Cluster
Shan, Nannan	Talk #9001 presented 7/25-8/01 virtually	Selina Lin† Nihar Kodkani‡	Facilitating Research through Developing Application Gateways on Anvil
Shan, Xiwei	Poster #1460 presented 7/25 @ 12:00-1:00pm	Paula Sanchez Ulloa†	Enhancing Bio-based Adhesive Performance for Sustainable Plywood: Optimizing Processing Pressure for Improved Mechanical Strength
Sharifian, Seyedmehdi	Poster #1438 presented 7/25 @ 12:00-1:00pm	Victor Alexander Dossin†	Selective Leaching of Rare Earth Element Compounds using Organic Acid
Sharma, Arpan Kumar	Poster #1429 presented 7/25 @ 12:00-1:00pm	Trisha Boodhoo†	Physics and Analytics of Lithium Batteries
Sharma, Ayushi	Poster #1465 presented 7/25 @ 12:00-1:00pm	Gaurav Vermani†	C to Rust: Manual Conversion Methods and Standardized Dataset Creation
Sharma, Shashank	Poster #1465 presented 7/25 @ 12:00-1:00pm	Gaurav Vermani†	C to Rust: Manual Conversion Methods and Standardized Dataset Creation
Sharma, Shivam	Poster #1037 presented 7/25 @ 9:00-10:00am	Tomas Montoya†	Steel Bridge Inspection, Assessment, Repair, and Management under FIRE
Sharma, Tasneem	Poster #1667 presented 7/25 @ 1:30-2:30pm	Emmanuel Monda Gichaba† Gaurav Sharma‡	Optimizing Translaminar Autonomous System Model Performance Utilizing Poseidon Pump Feedback Loop System
Shashurin, Alexey	Talk #7043 presented 7/25 @ 12:20pm	Mathis Malaussen†	Design and Implementation of an Inductively Coupled Plasma Neutralizer for SPT-100 Hall Thruster
She, Yu	Poster #1020 presented 7/25 @ 9:00-10:00am	Jai Nanda Lakamsani†	Tactile-based reactive control for robotic manipulation
Shen, Xiaoling	Poster #1638 presented 7/25 @ 1:30-2:30pm	Jake Kim†	Modeling of additive manufacturing powder for laser powder bed fusion applications.
Shin, Sung-Ho	Poster #1033 presented 7/25 @ 9:00-10:00am	Joseph Mayer†	The Effect of Statistical Sequence Control on PLGA Degradation in Langmuir Monolayers
Shishikura, Sota	Poster #1076 presented 7/25 @ 9:00-10:00am	Lev Titov†	Systemic delivery of Polymyxin B by iron-tannic Acid-albumin nanocomplex for treatment of endotoxemia.
Shoaf, Trevor Jaan	Talk #7097 presented 7/25 @ 3:20pm	Tyler S Dierckman†	Pharmacokinetic and Pharmacodynamic Assessment of Tigecycline Treatment for Nontuberculous Mycobacterium Infections

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Mentor Name	Presentation	Students	Title
Sieh, Broderick Michael	Poster #1427 presented 7/25 @ 12:00-1:00pm	Apoorva Bahl† Stella Mae Betts‡	Enhancing the Gallium Thermal Hydraulic Experiment (GaTE) Facility with Remote Automation for Advanced Reactor Simulation
Sieh, Broderick Michael	Poster #1428 presented 7/25 @ 12:00-1:00pm	Stella Mae Betts† Apoorva Bahl‡	Enabling Remote Sensing and Remote Operation of the Gallium Thermal Hydraulic Experiment (GaTE) Facility
Simpson, Garth J	Poster #1669 presented 7/25 @ 1:30-2:30pm	Alexander Higgins†	Dark-Field Absorbance Circular Dichroism of Oriented Chiral Thin Films
Sims, Christopher Savion	Talk #7108 presented 7/25 @ 4:00pm	Winston Yusong Lin†	Embedding algorithm for D-wave quantum computers
Simsek, Senay	Poster #1249 presented 7/25 @ 10:30-11:30am	Minghao He†	Enzymatic treatment of hemp for highly functional plant-based meat ingredient in commercial manufacturing.
Sinelli, Alexander Gregory	Poster #1406 presented 7/25 @ 12:00-1:00pm	Dania M Zein†	Transitions Between Electron Emission Mechanisms in Semiconductors
Singh, Richa	Poster #1212 presented 7/25 @ 10:30-11:30am	Yu-Wei Cheng†	Understanding the mechanisms underlying host preferences in <i>Uranotaenia lowii</i> , a frog-biting mosquito
Singh, Richa	Poster #1213 presented 7/25 @ 10:30-11:30am	Chloe Elizabeth Greco†	The role of Olfactory Cues for Host Localization in Frog-Biting Mosquito, <i>Uranotaenia lowii</i>
Singh, Richa	Poster #1214 presented 7/25 @ 10:30-11:30am	Eavan Sohr†	The role of visual cues in host seeking behavior in <i>Uranotaenia lowii</i> , a frog-biting mosquito
Singh, Titiksha	Poster #1604 presented 7/25 @ 1:30-2:30pm	Evan N Reid†	High-power Energy-dispersive X-Ray Fluorescence used to quantify and identify heavy metals concentrations, as well as the effect of Pb and Ni, in the air of Accra, Ghana.
Singhal, Kratika	Poster #1219 presented 7/25 @ 10:30-11:30am	Emma Litzelman†	SHIP1 phosphatase as a Late-Onset Alzheimer's Disease therapeutic target
Slizovskiy, Ilya	Poster #1008 presented 7/25 @ 9:00-10:00am	Reed G Brzezinski†	Antimicrobial Resistance and Fecal Microbiota Transplantation
Smith, Alyssa	Poster #1063 presented 7/25 @ 9:00-10:00am	Bea Olivia Cabot†	Repeatability of Cranial Morphometrics in the Pig
Smith, Alyssa	Poster #1409 presented 7/25 @ 12:00-1:00pm	Samantha Teal Fairchild†	Effects of Intrauterine Growth Restriction (IUGR) on Pre-Weaning Performance in Swine
Smith, Alyssa	Poster #1666 presented 7/25 @ 1:30-2:30pm	Chiara Isabella Gibboney†	Understanding the Acute Hematological Impact of Intrauterine Growth Retardation in Swine
Smith, Christopher W	Poster #1609 presented 7/25 @ 1:30-2:30pm	Jayla N Wilcox†	Assessment of Metal Exposure in Dried Blood Samples from the Health and Retirement Survey
Solorio, Luis	Poster #1031 presented 7/25 @ 9:00-10:00am	Matthew William Margraf†	Quantitative Characterization of Cerebrospinal Fluid Electrolytes in Animal Models of Intrathecal Delivery
Solorio, Luis	Poster #1632 presented 7/25 @ 1:30-2:30pm	Ana S Hernandez† Stephanie Maureen Poore†	Optimizing Nanobubble Shell Properties for Enhanced Cardiovascular Ultrasound Imaging
Solorio, Luis	Poster #1646 presented 7/25 @ 1:30-2:30pm	Maria Macias† Angelica Sofia Gonzalez-Ng*	Exploring the dynamics of breast cancer metastasis in relation to the high throughput magnetic actuation platform and lung respiration rates
Song, Qifan	Poster #1461 presented 7/25 @ 12:00-1:00pm	Paul William Swift†	Long-term Effects of Repeated, Episodic Heat Exposure on Cardiac Structure and Function in Aged, Obese Mice
Specht, Aaron James	Poster #1404 presented 7/25 @ 12:00-1:00pm	Bethany Faber†	Environmental Contamination and Birth Defects in Iraq



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Mentor Name	Presentation	Students	Title
Specht, Aaron James	Poster #1609 presented 7/25 @ 1:30-2:30pm	Jayla N Wilcox†	Assessment of Metal Exposure in Dried Blood Samples from the Health and Retirement Survey
Sripada, Shanmukhi	Talk #7037 presented 7/25 @ 11:20am	Lindsay Kathryn Sutherland†	Impact of Slot Liner Compression and Wire Geometry on the Total Thermal Resistance in the Electric Motor's Stator-Winding Assembly
Staiger, Christopher J	Poster #1435 presented 7/25 @ 12:00-1:00pm	Rem Quintin Villanueva David†	Revealing the Role of Reactive Oxygen Species in Actin Cytoskeleton Remodeling During Plant Immunity
Stallman, Jeffery Kirk	Poster #1274 presented 7/25 @ 10:30-11:30am	Bryan Reyes† Lane Bell‡	Investigating Leotiomycetes from Indiana Aquatic Ecosystems
Stanhope, Sarah Caroline	Poster #1413 presented 7/25 @ 12:00-1:00pm	Madolyn Marie Jarrett†	Investigating AHCY Interacting Partners in Drosophila S2 Cells.
Strachan, Alejandro H	Talk #7036 presented 7/25 @ 11:00am	Stephen Brice Rider† Sabria Kionna Nesmith‡	Machine Learning Force Field for Ceramics at Extreme Conditions
Strohmer, Brayden Paul	Poster #1471 presented 7/25 @ 12:00-1:00pm	Brett Andrew Anderson†	Characterizing In-vitro Prostate Cancer Cell Responses to Combination Treatment
Subah, Mohseu Rashid	Poster #1469 presented 7/25 @ 12:00-1:00pm	Mohammed Abdul Gani Zilani†	Automatic Fracture Risk Prediction from HR-pQCT
Subramanian, Ramaswamy	Poster #1252 presented 7/25 @ 10:30-11:30am	Angel Ortiz†	Mapping Local Resolution to Coordinates
Sun, Dengfeng	Poster #1677 presented 7/25 @ 1:30-2:30pm	Chadi Harmouche†	Energy-Optimal Arrival Route Planning for Operations of Multiple Unmanned Aerial Vehicles
Sun, Dengfeng	Talk #7098 presented 7/25 @ 3:40pm	Taeha Jeong†	Simulation-based Single Cargo Drone Stabilization Using Reinforcement Learning
Sundaram, Shreyas	Talk #7102 presented 7/25 @ 4:00pm	Mathias Erik Bock Agerman†	Wireless Sensor Network Deployment in Contested and Denied Undersea Environments
Suresh, Vallabh	Talk #7060 presented 7/25 @ 1:40pm	Sungyu Choi†	Human Papillomavirus E6 N-terminus Role for E6-p53 Interaction in E6AP-E6-p53 Complex
Surowiec, Rachel Kathleen	Poster #1469 presented 7/25 @ 12:00-1:00pm	Mohammed Abdul Gani Zilani†	Automatic Fracture Risk Prediction from HR-pQCT
Surowiec, Rachel Kathleen	Poster #1652 presented 7/25 @ 1:30-2:30pm	Gayatri Pradeep†	Establishing Temporal Bone Quality Changes in Progressive Chronic Kidney Disease: A Focus on Bone Water
Suter, Daniel	Poster #1074 presented 7/25 @ 9:00-10:00am	Twesha Ray†	Polyacrylamide hydrogels with defined elastic and surface properties for neurite outgrowth studies
Suter, Daniel	Talk #7019 presented 7/25 @ 10:00am	Nikhil Samit Sadavarte† Anshul Sanjeev† Katie Manfra‡	Pramipexole as a potential enhancer of regeneration after zebrafish spinal cord injury
Tackett, Brian Michael	Talk #7014 presented 7/25 @ 10:20am	Chunge Li†	Investigation of Hydrogen Evolution and local pH in Aqueous Zinc Ion Batteries
Taleyarkhan, Rusi P	Poster #1009 presented 7/25 @ 9:00-10:00am	Marie Emilie Charbonniert†	Radon Detection : A novel method using Centrifugally Tensioned Metastable Fluid Detector
Taleyarkhan, Rusi P	Poster #1448 presented 7/25 @ 12:00-1:00pm	Qi Heng Law†	Novel neutron-gamma radiation detectors based on PLA biopolymer detector (PLAD) sensor technologies.
Taleyarkhan, Rusi P	Poster #1653 presented 7/25 @ 1:30-2:30pm	Abhishek Raj†	Identifying Radiation Particles through Acoustic Shock Signals: A Deep Learning Perspective
Tan, Lin	Poster #1627 presented 7/25 @ 1:30-2:30pm	Samuel Duprey†	Benchmark Dataset for Fixing Software Vulnerabilities

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Mentor Name	Presentation	Students	Title
Tan, Lin	Talk #7002 presented 7/25 @ 9:40am	Michael Cheng†	Contrastive Learning in Language Models for Software Vulnerability Detection
Tanamachi, Robin L	Poster #1474 presented 7/25 @ 12:00-1:00pm	Lindsey Renee Peterson† Owen Ray Rahmant† Maliyah Ann Smith†	Digitizing Purdue's Role in Tornado Science: Preserving Materials from the 1974 Super Outbreak in Indiana
Tanoos, James	Poster #1229 presented 7/25 @ 10:30-11:30am	Joon Kang†	Sustainable Manufacturing: An analysis of environmental impact associated with ammonia emissions in North Carolina tobacco production
Tao, Weiguo Andy	Poster #1420 presented 7/25 @ 12:00-1:00pm	Nathaniel Merrick Miller†	Benchmarking Dimethyl Labeling-based Data-Independent Acquisition Pipelines for Extracellular Vesicle Proteomics and Phosphoproteomics
Tecle, Lucy Teberh	Talk #7016 presented 7/25 @ 10:00am	Akansha Chauhan†	Paper-Based Assay for Early Cervical Cancer Screening
Tesini Roseguini, Bruno	Poster #1461 presented 7/25 @ 12:00-1:00pm	Paul William Swift†	Long-term Effects of Repeated, Episodic Heat Exposure on Cardiac Structure and Function in Aged, Obese Mice
Tesmer, John	Poster #1072 presented 7/25 @ 9:00-10:00am	Kathryn P McCauley†	Development of Potent and Selective GRK5 inhibitors
Tesmer, John	Talk #7050 presented 7/25 @ 12:00pm	Nikki Leslie†	Targeting GRK5 in Metastatic Cancer: Structural Insights and Therapeutic Evaluation of Novel Inhibitors
Thakkar, Dutt Jagdish	Talk #7092 presented 7/25 @ 3:40pm	Daniel Camilo Puentes Rodriguez† Kely Johanna Monroy Malagon†	Indiana Economic Development and Supply Chain Leakage Reduction
Thompson, David	Poster #1042 presented 7/25 @ 9:00-10:00am	Ankita Prasad†	Development of Elastin-Like Polypeptide Based Nucleic Acid Delivery System for Treatment of Bladder Cancer
Thompson, David	Poster #1453 presented 7/25 @ 12:00-1:00pm	Louden James Maciag†	Improvement in Epichlorohydrin Coupling for More Effective Drug Synthesis
Titus, Michael	Poster #1447 presented 7/25 @ 12:00-1:00pm	Manila Kunwar† Ruey-Bin Tsai‡ Junyeong Ahn‡	Characterization and Improvement of Vegetable Oils as Quenchants for Heat Treatment of Metals
Titus, Michael	Poster #1610 presented 7/25 @ 1:30-2:30pm	Junyeong Ahn† Manila Kunwar‡ Ruey-Bin Tsai‡	Characterization of Vegetable-Based Oils as Sustainable Quench Oil Replacements and Practicality Assessments
Titus, Michael	Talk #7067 presented 7/25 @ 1:20pm	Ruey-Bin Tsai† Junyeong Ahn‡ Manila Kunwar‡	Sustainable Quench Oil Replacements for Austempering Salt Quenchants
Tonidis, Margaritis	Poster #1443 presented 7/25 @ 12:00-1:00pm	Nathan Joseph† Edward Vane†	Investigation of Bond-splitting Failure of Post-installed rebars in Reinforced Concrete (RC)
Torres Arias, Santiago	Poster #1266 presented 7/25 @ 10:30-11:30am	Karla Erendira Obermeier Velazquez†	Improving malware detection tools
Torres Cruz, Terry Jarianna	Poster #1062 presented 7/25 @ 9:00-10:00am	Lane Bell† Bryan Reyes‡	Examining Diversity Trends of Co-Infectious Organisms within Native Indiana Rust
Tovar, Andres	Talk #7055 presented 7/25 @ 12:40pm	Sevinch Pasilova†	Fabrication of a supercritical CO2 dryer and study of the effect of chitin in potato starch-based aerogels
Trabert, Leonie Marie	Poster #1245 presented 7/25 @ 10:30-11:30am	Adrian Muñoz†	Evaluation of the role of the Lateral Boundary Domain Transcription Factor GmLBD5 in Soybean Response to Sulfur Deficiency
Tran, Elizabeth J	Poster #1407 presented 7/25 @ 12:00-1:00pm	Jamie Kim Bryan†	Unraveling the roles of DEAD-box helicases in eukaryotic gene regulation

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Mentor Name	Presentation	Students	Title
Tripathi, Piyush Mani	Poster #1654 presented 7/25 @ 1:30-2:30pm	Sidney Evan Ryan† En-Hua Chang‡	Accurate Surface Temperature Collection for Lithium-Ion Batteries
Tripathi, Piyush Mani	Talk #7032 presented 7/25 @ 11:40am	En-Hua Chang† Sidney Evan Ryan‡	Single Phase Static Immersive Cooling of Cylindrical Battery - Insight of Measuring Methods and Result
Turner, Gwendylan Ariel Aura	Poster #1669 presented 7/25 @ 1:30-2:30pm	Alexander Higgins†	Dark-Field Absorbance Circular Dichroism of Oriented Chiral Thin Films
Umulis, David M	Poster #1029 presented 7/25 @ 9:00-10:00am	Lionel Yek-Yau Loo†	Segmenting EVL cell and tracking individual cell movement in Zebrafish Epiboly
Un, Cagri	Poster #1430 presented 7/25 @ 12:00-1:00pm	Ryan L Bottini†	Plastic Waste Conversion into Useful Products
Unmesh, Asim	Poster #1007 presented 7/25 @ 9:00-10:00am	Rishika Bera†	PrimerCurator: An LLM Powered Multimedia Educational Content Design and Creation Tool
Vacca, Andrea	Poster #1261 presented 7/25 @ 10:30-11:30am	Nicolas Giesemann†	Testing and Validation of High-Efficiency Hydraulic System for Off-Road Vehicles
Vaddadi, Sai Mahit	Talk #7009 presented 7/25 @ 9:40am	Aakarsh Misra†	Large Property Models for Predictive Chemistry
Varala, Kranthi	Poster #1243 presented 7/25 @ 10:30-11:30am	Samantha Larest†	Three novel transcription factors in RAV2, C2H2, and HSF identified to play a key response on tomato during chilling stress
Vargas Ordonez, Cristian Eduardo	Poster #1041 presented 7/25 @ 9:00-10:00am	Kayla Renae Phillips†	The PITCH Semiconductors Summer Program: What High School Students Learned?
Vargas Ordonez, Cristian Eduardo	Poster #1458 presented 7/25 @ 12:00-1:00pm	Hemisha Shardul Patel†	High School Students in Engineering Design Project: Teamwork and Decisions
Vaughn, Brenna	Poster #1226 presented 7/25 @ 10:30-11:30am	Katie Wing-See Chan†	Implications of Beta1 Integrin in Cell Density
Vayrynen, Jukka Ilmari	Talk #7075 presented 7/25 @ 2:00pm	Haixuan Huang†	Superconducting Diode Effect in Two-dimensional Topological Insulator Edges and Josephson Junctions
Velasquez De Bedout, Juan D	Poster #1224 presented 7/25 @ 10:30-11:30am	Alejandro Daza Gallo†	Genomic imputation and prediction analysis: Unraveling genetic variability in dairy cattle
Velay Lizancos, Maria Mirian	Poster #1018 presented 7/25 @ 9:00-10:00am	Ali Kalmagambetov†	Utilizing alternative air-entraining methods to enhance freeze-thaw durability of concrete with incorporated nanomaterials.
Velazquez-Marrero, Kevin Gabriel	Poster #1412 presented 7/25 @ 12:00-1:00pm	Nathan Michael Henderson†	Cdc14 Targeted Antifungal Drug Discovery
Velu, Dileepan	Poster #1648 presented 7/25 @ 1:30-2:30pm	Nashe Bumi Mucharambeyi†	Extinction Velocities of Droplet Flames in Forced Convection
Verma, Mohit	Poster #1045 presented 7/25 @ 9:00-10:00am	Neelesh Sarathy†	Pig Behavior Recognition using Machine Learning
Verma, Mohit	Poster #1410 presented 7/25 @ 12:00-1:00pm	Anagha Gaitondet†	One-step Colorimetric Isothermal Detection of Live Foodborne Pathogens
Viji Elango, Arval	Poster #1645 presented 7/25 @ 1:30-2:30pm	Mallory A Luse†	Designing Methods for Generating PVC-coated Magnetic Beads for High-throughput Microbiome Propagation
Villarreal, Cameron Xavier	Talk #7042 presented 7/25 @ 12:00pm	Sarah Marie Stallert†	Investigating the Relationship Between Gut Microbiome, Biomechanics, and Scoliosis: A Holistic Approach Through Two Complementary Studies
Vishnugopi, Bairav Sabarish	Poster #1429 presented 7/25 @ 12:00-1:00pm	Trisha Boodhoo†	Physics and Analytics of Lithium Batteries
Vlachos, Pavlos	Talk #7072 presented 7/25 @ 2:00pm	Kara Rochelle McCrindle†	In-vitro Assessment of Patient-Specific Cerebral Aneurysm Models for Hemodynamic Analysis using Particle Image Velocimetry and 4D Flow MRI

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Mentor Name	Presentation	Students	Title
Volkening, Alexandria	Talk #7012 presented 7/25 @ 9:40am	Thanmaya Pattanashetty† Joseph Michael Crompt‡	Forecasting the 2024 US Elections
Volkening, Alexandria	Talk #7020 presented 7/25 @ 10:20am	Alyson Jones† Kelsi Anderson†	Quantifying the veins in plants
Volkening, Alexandria	Talk #7074 presented 7/25 @ 2:40pm	Joseph Michael Crompt† Thanmaya Pattanashetty‡	Forecasting 2024 U.S. elections
Voyles, Richard M	Poster #1621 presented 7/25 @ 1:30-2:30pm	Hyunsang Cho† Christopher Li Gou‡ Aditya S Hebbani‡	Enhancing Robotic Ultrasound Image Quality Assessment
Waghmare, Dheeraj Govindrao	Poster #1052 presented 7/25 @ 9:00-10:00am	Edward Vane†	Extension of Concrete Elements Using Post-Installed Rebar Technology
Wagner, Dane Christophe	Poster #1272 presented 7/25 @ 10:30-11:30am	Keeley Vonne Farmer†	The investigation and optimization of MIP-based PFAS sensing across sample matrices
Wagner, Dane Christophe	Poster #1273 presented 7/25 @ 10:30-11:30am	Sadie A Poirier† Yashvi Choudhary‡ Megan Leigh Hill* Keeley Vonne Farmer*	Silver leakage in commercially available and bipolar reference electrodes (BPRES): a TNBC toxicity study
Wagner, Ryan B	Talk #7066 presented 7/25 @ 1:00pm	Gabriel Brandt de Toledo†	Vibrating piezoelectric membranes for water filtration applications
Wang, Haiyan	Poster #1439 presented 7/25 @ 12:00-1:00pm	David S Estrella†	Growth and modeling of nanopillars towards integrated photonic components
Wang, Jingkun	Poster #1617 presented 7/25 @ 1:30-2:30pm	Yuyuan Cao†	Using Engagement and Progress Metrics to Predict Team Performance through Communication Analysis
Wang, Lei	Talk #7041 presented 7/25 @ 11:40am	William Henry Steven† Anh Nhu‡	Explainable Machine Learning for Predicting Atmospheric Blocking
Wang, Lei	Talk #7099 presented 7/25 @ 4:00pm	Owen T Odney† William Andrew Messman*	Using Data-Driven Equation Discovery Algorithms to Show a Nonlinear Schrodinger Equation Description of Atmospheric Blocking
Wang, Nien-hwa L	Poster #1438 presented 7/25 @ 12:00-1:00pm	Victor Alexander Dossin†	Selective Leaching of Rare Earth Element Compounds using Organic Acid
Wang, Xiaojin	Poster #1243 presented 7/25 @ 10:30-11:30am	Samantha Larest†	Three novel transcription factors in RAV2, C2H2, and HSF identified to play a key response on tomato during chilling stress
Wang, Xilong	Poster #1645 presented 7/25 @ 1:30-2:30pm	Mallory A Luse†	Designing Methods for Generating PVC-coated Magnetic Beads for High-throughput Microbiome Propagation
Wang, Yu	Poster #1660 presented 7/25 @ 1:30-2:30pm	Ilene Trach† Case T Vandeveld†	Cob Structural Testing for Automated Earth Construction
Wang, Yu	Poster #1661 presented 7/25 @ 1:30-2:30pm	Case T Vandeveld† Ilene Trach†	3D printing earth and structural testing of the samples
Ware, Jason	Talk #9018 presented 7/25-8/01 virtually	Shamari Garrett†	Analyzing Neighborhood Property Conditions in South Lafayette Neighborhood
Warsinger, David	Poster #1015 presented 7/25 @ 9:00-10:00am	Joyce Hu†	Hydrophobic Carbonized Wood Membranes: A Suitable Alternative for Membrane Distillation
Warsinger, David	Poster #1054 presented 7/25 @ 9:00-10:00am	Lily Avery Waterman†	Fabrication of Thermally Insulative Membranes for Dehumidification
Warsinger, David	Poster #1477 presented 7/25 @ 12:00-1:00pm	Christopher Ray†	Efficient and Sustainable Water Desalination Technology- Batch Reverse Osmosis Systems
Warsinger, David	Poster #1630 presented 7/25 @ 1:30-2:30pm	Zhichen Guan†	Investigation of ionocaloric refrigeration cycle: Thermodynamic model analysis and proof of concept

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Mentor Name	Presentation	Students	Title
Warsinger, David	Poster #1673 presented 7/25 @ 1:30-2:30pm	Clark Lay† Songhao Wu‡	ENERGY ANALYSIS OF THE DEDICATED OUTDOOR AIR CONDITIONING SYSTEM COUPLED WITH A DUAL MEMBRANE MODULE HUMIDITY PUMP.
Warsinger, David	Talk #7008 presented 7/25 @ 9:20am	Fredrick G Mungai†	Predictive Modeling and Experimental Observation of a Small-Scale Two-Phase Loop Thermosyphon
Warsinger, David	Talk #7096 presented 7/25 @ 3:00pm	Kazim Hussain Jafrit†	Investigation of Capture Efficiency in Acoustically Enhanced Filtration Systems
Wat, Jacob Hnatusko	Talk #7017 presented 7/25 @ 10:20am	Tristen M West†	Complete Characterization of Isotope-enriched Proteins to Improve Vibrational Spectroscopy Simulations
Watson, Ben G	Poster #1254 presented 7/25 @ 10:30-11:30am	Shaye Ross†	In vitro Structural Characterization of the Secreted Brucella protein VceC (VirB coregulated effector C) reveals Diverse Multimeric States
Weake, Vikki Marie	Poster #1218 presented 7/25 @ 10:30-11:30am	Sara Bethany Victoria Habert†	Investigating AD-induced Gnm1 upregulation in Drosophila clock cells
Weake, Vikki Marie	Poster #1413 presented 7/25 @ 12:00-1:00pm	Madolyn Marie Jarrett†	Investigating AHCY Interacting Partners in Drosophila S2 Cells.
Webb, Kevin J	Poster #1035 presented 7/25 @ 9:00-10:00am	Tyler Merrill†	Membrane-Less Protein Condensates
Webb, Kevin J	Poster #1268 presented 7/25 @ 10:30-11:30am	Carolyn Sun†	Simulation of Membrane Deflection Response to Temporally Impulsed Optical Pressure
Wei, Tiwei	Poster #1675 presented 7/25 @ 1:30-2:30pm	Ian Quant†	Direct Single Phase Jet Impingement Design for Electronics Cooling
Weibel, Justin	Talk #7008 presented 7/25 @ 9:20am	Fredrick G Mungai†	Predictive Modeling and Experimental Observation of a Small-Scale Two-Phase Loop Thermosyphon
Wells, Ellen M	Poster #1404 presented 7/25 @ 12:00-1:00pm	Bethany Faber†	Environmental Contamination and Birth Defects in Iraq
Welp, Lisa	Talk #7025 presented 7/25 @ 10:20am	Bethany Rita Kettleborough† Valentina Saenz*	Analyzing moisture sources in the Andean Western Cordillera using water stable isotopes in precipitation during the 2023-2024 El Niño event
Welp, Lisa	Talk #7100 presented 7/25 @ 4:20pm	Valentina Saenz† Bethany Rita Kettleborough*	Rainwater Stable Isotope Characterization: A First Step Towards Better Understanding Large-Scale Atmospheric Moisture Transport Over South America During a Strong El Niño
Wheeler, Isaac Stonewall	Poster #1442 presented 7/25 @ 12:00-1:00pm	Chi-En Huang†	Comparative Analysis of Methods for Measuring Mass Transfer Resistance (Rp) from Temperature in Lyophilized Formulations
Whelton, Andrew	Poster #1674 presented 7/25 @ 1:30-2:30pm	Marcelo Marcos† Payten Marley Whitfield‡ Josh Michael Youngblood‡	An Investigation into the Hydraulics of a Wildfire Damage to Water Distribution Systems and Finished Water Storage Tank Vent Filtration Potential
Whelton, Andrew	Poster #1676 presented 7/25 @ 1:30-2:30pm	Payten Marley Whitfield† Marcelo Marcos‡ Josh Michael Youngblood‡	Investigating Smoke Composition and Dispersion from Wildfire Events and Air Filter Implementation Potential on Water Storage Tanks
Widhalm, Joshua R	Poster #1248 presented 7/25 @ 10:30-11:30am	Esperanza Zambrano†	Investigating the contribution of proteotoxicity to juglone's mechanism of action
Wildridge, Andrew James	Talk #7091 presented 7/25 @ 3:20pm	Jack Patrick Rodgers†	Bumblebee: A self-supervised transformer model to learn top quark decay at the Large Hadron Collider

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Mentor Name	Presentation	Students	Title
Wilhelm, Roland Conrad	Poster #1645 presented 7/25 @ 1:30-2:30pm	Mallory A Luse†	Designing Methods for Generating PVC-coated Magnetic Beads for High-throughput Microbiome Propagation
Wilker, Jonathan J	Poster #1030 presented 7/25 @ 9:00-10:00am	Uyen Linh Ly†	Development of Water-Resistant Adhesives by Adding Proteins to a Bio-Based Epoxy System
Wilkes, Rebecca P	Poster #1056 presented 7/25 @ 9:00-10:00am	Rubyleane Linton† Scott A Gentry* Amy R Witman* Gabriela Gambirazio* Farren E Osborn*	Investigating suspected mosquitos for the presence of Cache Valley Virus in Indiana
Wise DiVincenzo, Jenna L	Poster #1449 presented 7/25 @ 12:00-1:00pm	Craig Liu†	Designing Fractional Permissions for a Gradual Verifier
Wise DiVincenzo, Jenna L	Poster #1631 presented 7/25 @ 1:30-2:30pm	Priyam Gupta†	Increasing the Expressibility of a Gradual Verifier
Wise DiVincenzo, Jenna L	Talk #7010 presented 7/25 @ 9:00am	Marilyn Rego†	AI for Software Verification
Wissmann, Ethan P	Poster #1013 presented 7/25 @ 9:00-10:00am	Marzuk Hasan†	Purdue RDE Thrust Calibration System
Wolf, Patricia Marie	Poster #1250 presented 7/25 @ 10:30-11:30am	Sarah Hong†	Screening Human Microbial Communities for Genotoxic Hydrogen Sulfide Production
Won, You-Yeon	Poster #1033 presented 7/25 @ 9:00-10:00am	Joseph Mayert†	The Effect of Statistical Sequence Control on PLGA Degradation in Langmuir Monolayers
Woo, Jungha	Talk #9000 presented 7/25-8/01 virtually	Nihar Kodkani† Selina Lin‡	Molecular Chemistry Gateway: Developing Open OnDemand Applications for Purdue's Anvil Cluster
Woo, Jungha	Talk #9001 presented 7/25-8/01 virtually	Selina Lin† Nihar Kodkani‡	Facilitating Research through Developing Application Gateways on Anvil
Wu, Feng	Poster #1432 presented 7/25 @ 12:00-1:00pm	Pablo Cambra Valcarcel†	Performance Assessment of a Novel Wall-Embedded Micro Heat Pump for Radiant Heating in Buildings
Wu, Joy	Poster #1611 presented 7/25 @ 1:30-2:30pm	Alex James Alonzo† Jennifer Caraballo‡	Measurement of rare phosphoinositide lipids in Ras mutant cell membranes
Wu, Xinyu	Poster #1050 presented 7/25 @ 9:00-10:00am	Drake William Strait†	Characterization and immunotherapeutic targeting of the tumor microenvironment
Wu, Yi	Poster #1627 presented 7/25 @ 1:30-2:30pm	Samuel Duprey†	Benchmark Dataset for Fixing Software Vulnerabilities
Xie, Chong	Poster #1239 presented 7/25 @ 10:30-11:30am	Anasofia Carrillo†	Molecular genetic studies of candidate developmental regulators in two model species: <i>Ceratopteris richardii</i> and <i>Arabidopsis thaliana</i>
Xu, Xianfan	Poster #1260 presented 7/25 @ 10:30-11:30am	Jack Rearden Ferlazzo†	Nanoscale 3D Printing using Two-Photon Lithography for Biomedical and Electronic Applications
Xu, Xianfan	Poster #1635 presented 7/25 @ 1:30-2:30pm	Junwoo Jang†	Nanoscale Heat Transfer in Semiconductor Thin Films
Xu, Xiaolin	Talk #7098 presented 7/25 @ 3:40pm	Taeha Jeong†	Simulation-based Single Cargo Drone Stabilization Using Reinforcement Learning
Yang, Beinan	Poster #1215 presented 7/25 @ 10:30-11:30am	Hillary English†	Characterizing sulfotransferase 2B1a and determining its effect in drug delivery
Yang, Danzhou	Poster #1253 presented 7/25 @ 10:30-11:30am	Nicholas Paredes†	Evaluating software for G-quadruplex prediction
Yang, Hyeondong	Talk #7072 presented 7/25 @ 2:00pm	Kara Rochelle McCrindle†	In-vitro Assessment of Patient-Specific Cerebral Aneurysm Models for Hemodynamic Analysis using Particle Image Velocimetry and 4D Flow MRI



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Mentor Name	Presentation	Students	Title
Yang, Xi	Poster #1239 presented 7/25 @ 10:30-11:30am	Anasofia Carrillo <sup>†</sup>	Molecular genetic studies of candidate developmental regulators in two model species: <i>Ceratopteris richardii</i> and <i>Arabidopsis thaliana</i>
Yang, Yang	Poster #1064 presented 7/25 @ 9:00-10:00am	Christian A Durbin <sup>†</sup>	Deficits in nucleus accumbens activity are associated with social behavior deficits in <i>Scn2a</i> -deficient mice
Yang, Yang	Poster #1637 presented 7/25 @ 1:30-2:30pm	Hina Leilani Kadono <sup>†</sup>	Phenotypic characterization of an SCN2A variant found in a child with autism using hiPSC-derived cortical organoids
Yang, Yang	Poster #1663 presented 7/25 @ 1:30-2:30pm	Akila Abeyaratna <sup>†</sup>	Investigating Early-Onset Neurodegeneration in Patients with Hereditary, Sensory, and Autonomic Neuropathy Type 1E (HSAN1E) Using 3D Cortical Organoids
Yang, Yun-Fang	Poster #1000 presented 7/25 @ 9:00-10:00am	Lina Milena Gomez Morales <sup>†</sup>	Analysis of charge transportation behavior
Yao, Yao	Talk #7091 presented 7/25 @ 3:20pm	Jack Patrick Rodger <sup>†</sup>	Bumblebee: A self-supervised transformer model to learn top quark decay at the Large Hadron Collider
Yeo, Yoon	Poster #1076 presented 7/25 @ 9:00-10:00am	Lev Titov <sup>†</sup>	Systemic delivery of Polymyxin B by iron-tannic Acid-albumin nanocomplex for treatment of endotoxemia.
Yogi, Ketankumar Jayantkuma	Poster #1675 presented 7/25 @ 1:30-2:30pm	Ian Quant <sup>†</sup>	Direct Single Phase Jet Impingement Design for Electronics Cooling
Yoon, Gyeong Mee	Poster #1242 presented 7/25 @ 10:30-11:30am	Molly Kubal <sup>†</sup>	Differential Roles of ACS Enzyme Isoforms in Ethylene-Mediated Abiotic Stress Responses in <i>Arabidopsis thaliana</i>
Yoshida, Ken	Poster #1616 presented 7/25 @ 1:30-2:30pm	Nicholas Herschel Burriss <sup>†</sup>	Two Channel Low Frequency Alternating Currents to Achieve Nerve Conduction Block
Youngblood, Jeffrey P	Poster #1447 presented 7/25 @ 12:00-1:00pm	Manila Kunwar <sup>†</sup> Ruey-Bin Tsai <sup>‡</sup> Junyeong Ahn <sup>‡</sup>	Characterization and Improvement of Vegetable Oils as Quenchants for Heat Treatment of Metals
Youngblood, Jeffrey P	Poster #1610 presented 7/25 @ 1:30-2:30pm	Junyeong Ahn <sup>†</sup> Manila Kunwar <sup>‡</sup> Ruey-Bin Tsai <sup>‡</sup>	Characterization of Vegetable-Based Oils as Sustainable Quench Oil Replacements and Practicality Assessments
Youngblood, Jeffrey P	Poster #1645 presented 7/25 @ 1:30-2:30pm	Mallory A Luse <sup>†</sup>	Designing Methods for Generating PVC-coated Magnetic Beads for High-throughput Microbiome Propagation
Youngblood, Jeffrey P	Talk #7067 presented 7/25 @ 1:20pm	Ruey-Bin Tsai <sup>†</sup> Junyeong Ahn <sup>‡</sup> Manila Kunwar <sup>‡</sup>	Sustainable Quench Oil Replacements for Austempering Salt Quenchants
Yousuf, Mujeeb	Talk #7022 presented 7/25 @ 10:20am	Junhan Shen <sup>†</sup>	ARMS: Reconfigurable Microelectronic System for Autonomous Movement and Collaboration
Yu, Denny	Poster #1617 presented 7/25 @ 1:30-2:30pm	Yuyuan Cao <sup>†</sup>	Using Engagement and Progress Metrics to Predict Team Performance through Communication Analysis
Yu, Denny	Talk #7045 presented 7/25 @ 12:00pm	Dan Ha Le <sup>†</sup>	Assessing and Improving Robotic Surgeon's Intraoperative Non-Technical Skills: A Mixed-Methods Study
Yuh, Madeleine Shuhn Tsua	Poster #1024 presented 7/25 @ 9:00-10:00am	Ilhoon Lee <sup>†</sup>	Online Updating of Cognitive State Models in Human-Automation Interaction

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Mentor Name	Presentation	Students	Title
Yun, Yeon Ji	Poster #1059 presented 7/25 @ 9:00-10:00am	Connor Bradley Frey† Ryan Thomas Jordan* Edward Falcon Navarro* Caasi Nketiah Boakye* Minsoo Oh* Tim Nadolsky* Ping-Hung Nick Ko* Brian Mingyang Qi* Anthony Wang*	User-Friendly Interface for Real-Time Musical Accompaniment
Yun, Yeon Ji	Poster #1060 presented 7/25 @ 9:00-10:00am	Edward Falcon Navarro† Ryan Thomas Jordan* Tim Nadolsky* Ping-Hung Nick Ko* Caasi Nketiah Boakye* Minsoo Oh* Brian Mingyang Qi* Anthony Wang* Connor Bradley Frey*	Real-Time Voice Commands for Musical Accompaniment
Yun, Yeon Ji	Poster #1636 presented 7/25 @ 1:30-2:30pm	William P Jiang† Shrinand Perumal* Shivam Hemal Trivedi*	Enhancing Cello Performance through Real-Time Posture Evaluation
Yun, Yeon Ji	Poster #1662 presented 7/25 @ 1:30-2:30pm	Richard Joseph Von Terscht† Samantha Sudhoff† Vinay Sai Meda‡	Robot Cello
Yun, Yeon Ji	Talk #7000 presented 7/25 @ 9:00am	Ryan Thomas Jordant† Tim Nadolsky* Edward Falcon Navarro* Ping-Hung Nick Ko* Caasi Nketiah Boakye* Minsoo Oh* Brian Mingyang Qi* Anthony Wang* Connor Bradley Frey*	Real-Time Musical Accompaniment for Non-Improvised Music
Zea Rojas, Maria Paula	Poster #1407 presented 7/25 @ 12:00-1:00pm	Jamie Kim Bryant†	Unraveling the roles of DEAD-box helicases in eukaryotic gene regulation
Zhang, Cankui	Poster #1246 presented 7/25 @ 10:30-11:30am	Diallo Thomas† Jing Huang* Ana Maria Orjuela Rodriguez*	Enhancing Plant Transformation through Agrobacterium tumefaciens
Zhang, GuangJun	Poster #1659 presented 7/25 @ 1:30-2:30pm	Maitreyee Panini Telang†	Chemogenetic Tools in Zebrafish: Visualizing and Manipulating Bioelectric Activity
Zhang, GuangJun	Talk #7110 presented 7/25 @ 4:20pm	Abigail Martint†	Application of genetically encoded voltage indicators to zebrafish tissue-specific bioelectricity
Zhang, Manni	Poster #1618 presented 7/25 @ 1:30-2:30pm	Belen Noemi Carrasco Grandest†	Harnessing Real-Time Sensor Data: A Novel Approach to Quality Control in Manufacturing
Zhang, Weiwei	Poster #1435 presented 7/25 @ 12:00-1:00pm	Rem Quintin Villanueva David†	Revealing the Role of Reactive Oxygen Species in Actin Cytoskeleton Remodeling During Plant Immunity
Zhang, Xiaoqi	Talk #7052 presented 7/25 @ 12:40pm	Damilola Showunmi† Wei Jiang‡	Tool for CryoEM 2D Average Image Stitching Assisting Initial Reference Building of Helical Filaments
Zhou, Shan	Poster #1209 presented 7/25 @ 10:30-11:30am	Emma Mast†	Analysis of language used in electric vehicle charging policies
Zhou, Shijun	Talk #7003 presented 7/25 @ 9:00am	Andrew Lewis Hadikusumot†	Foldable FWV Fabrication and Control Analysis
Zhou, Yun	Poster #1239 presented 7/25 @ 10:30-11:30am	Anasofia Carrillo†	Molecular genetic studies of candidate developmental regulators in two model species: <i>Ceratopteris richardii</i> and <i>Arabidopsis thaliana</i>

Student Role Notation: †Presenting Author, ‡Contributing Author, \*Acknowledgement

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Mentor Name	Presentation	Students	Title
Zhu, Feng	Poster #1044 presented 7/25 @ 9:00-10:00am	Luisa Sanchez†	Enhancing a Machine Learning Model for Lithofacies Prediction Using Well Log Data From The Illinois Basin
Zhu, Jie	Talk #7038 presented 7/25 @ 11:40am	Charles Spencer Bowles† Vidisha Singhal‡	Simulation of Modified Coherent Ising Machines for Combinatorial Optimization
Zhuang, Yuxin	Talk #7084 presented 7/25 @ 3:00pm	Abigail Hyejin Lee†	Investigating the effects of ciclopirox and its derivatives on urothelial and renal cell carcinomas
Ziliak, Meredith Christine	Poster #1032 presented 7/25 @ 9:00-10:00am	Jax Patrick Marrone† Andres Navarro‡ Sahil Vijay Desai‡ Emily Le Bell‡	Fast Auditory Brainstem Responses as a Method of Hidden Hearing Loss Detection
Ziliak, Meredith Christine	Talk #7054 presented 7/25 @ 12:20pm	Sahil Vijay Desai† Jax Patrick Marrone‡ Andres Navarro‡ Emily Le Bell‡	Feature Extraction for Classification of Small Firearms-Like Noise and Blast Exposure Hearing Loss in Rat Models
Zimmerman, Michael Paul	Talk #7071 presented 7/25 @ 2:40pm	Caroline Powell†	Impaired theta oscillations during working memory as a potential biomarker for autism spectrum disorders
Ziviani, Davide	Poster #1432 presented 7/25 @ 12:00-1:00pm	Pablo Cambra Valcarcel†	Performance Assessment of a Novel Wall-Embedded Micro Heat Pump for Radiant Heating in Buildings
Ziviani, Davide	Poster #1630 presented 7/25 @ 1:30-2:30pm	Zhichen Guan†	Investigation of ionocaloric refrigeration cycle: Thermodynamic model analysis and proof of concept
Zou, Ben	Talk #7021 presented 7/25 @ 10:00am	Shivi Pandey†	A Study on the Temporal Robustness of Machine Learning for Poverty Mapping and Comparison of the Transfer Learning and Random Forest Approaches