

2025 Undergraduate Summer Research Awards

Faculty Investigator(s)	College	Title of Proposal
Li, Qian	A & S	Ripple: The Bond Between Humans, Lake, and River
Bhattacharya, Ruchi	A & S	Impact of warming winters and road salt stress on inland water quality in underprivileged and marginalized neighborhoods
Grunert, Brice	A & S	Quantifying internal phosphorus loading associated with dredging in Lake Erie
Li, Bibo	A & S	Expression and purification of recombinant PPL2 fragments from E. coli for raising polyclonal antibodies
Li, Bibo	A & S	Determine whether TelAP2 interacts with telomere proteins TbRAP1, TbTIF2, and TbTIF3 by yeast 2-hybrid analysis
Lin, Zihan	A & S	Multi-scale urban greenness assessment: Integrating satellite imagery with street view images for improved accuracy
Rauschert, Emily	A & S	Restoration impacts on native plant diversity in regional meadow ecosystems
Sandlers, Yana; Boyd, Warren C	A & S	Synthesis and application of peroxidized cardiolipin specific fluorescent probe Mito Clox
Su, Bin	A & S	Nimesulid analogs as anti-trypanosomal agent
Sun, Xue-Long	A & S	Synthesis and Application of Sialidase Substrates and Inhibitors
Sun, Xue-Long	A & S	Glyco-engineering of Recombinant Thrombomodulin
Zhou, Aimin	A & S	RNase L mediates the expression of IL-10
Joyce, James	A & S	Filmmaking as Problem Solving
Slankard, Cigdem	A & S	Migrant Women: Research, Editing, and Story Structure in a Feature Length Documentary
Soprunov, Ivan	A & S	Discrete Heine-Shephard problem for four planar bodies
Hoover, Alexander	A & S	Developing discrete-to-continuum nerve net and activation models for jellyfish biomechanics
Munther, Daniel; Ryan, Shawn; Kothapalli, Chandra	A & S/ENG	PH-Dependent Thermal Inactivation Models for Pathogen Control During Poultry Scalding
Resnick, Andrew	A & S	Characterizing Mechanical Properties of Primary Cilia using an Optical Trap
Streletzky, Kiril	A & S	Effect of Polymer Chain Length on the Rotational and Translational Diffusion of Polymer Grafted Nanorods
Vitali, Jacqueline	A & S	Crystallization of Complexes of M. jannaschii Dihydroorotase with Ligands
Baker, Blair	A & S	Examining School Districts' Intervention Protocols Against Student Discrimination
Horvath, Michael	A & S	Smart Surveys Part 2: Unleashing AI to Transform Organizational Assessments
Yaroslavsky, Ilya	A & S	Emotion regulation's role in mitigating affective disorder risk from human-influenced disasters: A cross-cultural investigation
Wanyerka, Phil	A & S	Archaeological Investigations at the Fort Hill Earthwork Complex, Season Two, Cleveland Metroparks, Rocky River Reservation
Gatica, Jorge	ENG	From Household Recyclables to Energy via Catalytic Chemical Reactions
Holland, Nolan	ENG	Design and construction of a system for adding targeting peptides to temperature responsive nanoparticles
Monty-Bromer, Chelsea	ENG	Study of Sweat Biomarkers during the Menstrual Cycle
Uz, Metin	ENG	Poly (Styrene -Isobutylene-Styrene) triblock Copolymer-based Ion-exchange Membrane for Vanadium Redox Flow Battery
Allena, Srinivas	ENG	Glass Fiber Reinforced Concrete for Pavement Applications
Jenkins, Jacqueline	ENG	React to That!
Kidando, Emmanuel	ENG	AI-Powered System for Detecting Real-time Traffic Conditions from Camera Imagery Data
Owusu-Danquah, Josiah; Beheiry, Salwa	ENG	Computationally Guided Framework to Demolition and Deconstruction of Civil Infrastructure: Leveraging Simulations and Artificial Intelligence Technologies
Kalatzis, Apostolos	ENG	Optimizing Human-Robot Collaboration: Investigating Workload Dynamics through Adaptive Autonomy Levels and Optimal Robot Speeds
Wang, Haodong	ENG	CUDA-accelerated Multi-precision Integer Library for Cybersecurity Computations
Zhu, Ye	ENG	On Privacy Protection in Applications with IoT Devices
Rahmati, Mehdi	ENG	AquaSwarm: A 3D-Printed Underwater Robotic Swarm for Environmental Monitoring
Zhao, Wenbing	ENG	Modeling and Simulation of AGV-Based Parcel Sortation Systems
Borkar, Tushar	ENG	An In-Depth Analysis of Porosity: Utilizing Porosity for Fluid Flow Channels in Stainless Steel 316L Using Selective Laser Melting
Borkar, Tushar	ENG	Additive manufacturing of fully dense and porous structures of pure Ti and Ti-hBN for Biomedical Applications
Borkar, Tushar	ENG	Investigation of Corrosion Behavior, Mechanical Properties, and Microstructural Characteristics of SAE 630 Stainless Steel Fabricated by Additive Manufacturing for Energy Applications
Borkar, Tushar	ENG	Evaluating the Influence of Post-Processing on the Microstructure and Mechanical Behavior of Binder Jet and Powder Bed Fusion AISI M2 Tool Steel Components
Goudarzi, Navid	ENG	Wind-Solar Hybrid Systems for EV Charging: Energy Potential and Grid Impact Analysis
Goudarzi, Navid	ENG	Machine Learning for Synergistic Wind-Solar Hybrid Systems for EV Charging
Ning, Liqun	ENG	Bioprinting artificial bile ducts for regenerative medicine
Ning, Liqun	ENG	Engineered microgel devices for cancer targeting microbes encapsulation and delivery
Volk, Melissa	Health	Camp NeuroSparks Year 2
Hammonds, Michael	Health	Collection and measurement of pro-inflammatory interleukins in mouse biofluids by brainstem stimulation
Lammers, Andrew	Health	Effects of tail mass and movement on locomotor kinetics and stability in the laboratory rat
Vincent, Aviva	Health	Support for continued student research engagement in "Examining The Link through an Evaluation of Ohio's House Bill 33"
Layman, Deborah; Lundeen-Smith, Lori	Health	The Effect of Songwriting and Receptive Therapeutic Music Experiences on the Self-Reported Mood of Adults who are Unhoused
Huang, Grace	PA & ED	Navigating Parenting Practices Among Newly Resettled Congolese Refugee Families