

Mentor School	Student Name	Student Major	Mentor Name	Title of Research Project or Title of Paper/Poster
COA				
Architecture	Smruti Keshani	Architecture	Matthew Swarts	On the Virtualization of Environment and Behavior of Nurses in Hospital Layouts in the Evaluation of Overall Walking Distance
COC				
Computer Science	Sterling Peet	Computer Science	Alexander Gray	MLPACK: A Scalable C++ Machine Learning Library
Computer Science	Daniel Castro	Computer Science	Irfan Essa	A Behavioral Imaging approach to Characterize Progression of Mild Cognitive Impairment (MCI) and Alzheimer's disease (AD) by Analysis of Walking Motions
Computer Science	Suk Hwan Hong	Computer Science	Santosh Pande	a context-aware "universal" security policy scheme for the Android platform that is practical, flexible, and usable
Computer Science	Urvashi Goverdhan	Computer Science	Santosh Vempala	Indian National Autism Registry
Computer Science	David Emmel	Computer Science	Umakishore Ramachandran	Geospatial Partitioning of Popular Videos on the Cloud
Computer Science	Zhongtian Jiang		Tetali Prasad	Algorithms for 3-D Geometric Bin Packing
Computer Science	Kyle Davis		Tetali Prasad	Algorithms for 3-D Geometric Bin Packing
COE				
Aerospace Engineering	Hasan Tawab	Aerospace Engineering	Amy Pritchett	Design and Evaluation of Pilot Interface for Horizontal Maneuvers to Avoid Traffic Collisions
Aerospace Engineering	David Bertram	Aerospace Engineering	Lieuwen Tim	Improvement of Data Acquisition Systems for Turbulent Flame Speed Experimental Facility
Aerospace Engineering	Sarah Brown	Aerospace Engineering	Mark Costello	AERODYNAMIC CONTROL OF INFLATABLE WING AIRCRAFT USING FLAP SPOILER
Aerospace Engineering	John Forbes	Aerospace Engineering	Tim Lieuwen	Upgrades to the High Pressure Turbulent Flame Test Facility at the Ben T. Zinn Combustion Laboratory
Aerospace Engineering	Kelvin Murphy	Mechanical Engineering	Tim Lieuwen	Flame Imaging and Emission of High-Pressure Low Swirl Burner
Aerospace Engineering	Ramon Romero	Chemical Engineering	Timothy Lieuwen	Characteristics of Highly Stretched Premixed Syngas Flames
Biomedical Engineering	William Sessions	Biomedical Engineering	Ajit Yoganathan	Papillary Muscle Sandwich' or 'Left Ventricular Shish-Kabob': Ideal Repairs for a Failing Left Heart?
Biomedical Engineering	Harish Srinimukesh	Biomedical Engineering	Ajit Yoganathan	In Vitro Investigation of Energy Loss in the Total Cavo-Pulmonary Connection Anatomies at Exercise Conditions
Biomedical Engineering	Grant Stearns	Biomedical Engineering	Ajit Yoganathan	The effects of transcatheter valve placement and sizing on function and durability
Biomedical Engineering	Anum Syed	Biomedical Engineering	Gang Bao	Tracking Human Cardiac Subtype Specification using Molecular Beacons
Biomedical Engineering	Needa Virani	Biomedical Engineering	Gang Bao	Surface Modification of Superparamagnetic Iron Oxide Nanoparticles for Atherosclerosis Plaque Imaging
Biomedical Engineering	William Hendry	Biomedical Engineering	Garrett Stanley	Effects of Electrical and Optical Stimulation on the Thalamocortical Network in the Anesthetized Rodent
Biomedical Engineering	Melissa Puntkattalee	Biochemistry	Garrett Stanley	Neural Activity in a Two Deflection Whisker Task in the Behaving Animal
Biomedical Engineering	Shuntol Holloway	Biomedical Engineering	Hanjoong Jo	The Role of Shear Stress on Thrombospondin-1 Expression in Human Aortic Valve Endothelium
Biomedical Engineering	Harrison Bartlett	Biomedical Engineering	Lena Ting	Postural Stability in Animals of Different Sizes, Shapes, and Neural Conduction Velocities
Biomedical Engineering	Binbin Chen	Biomedical Engineering	Manu Platt	Computational Modeling of S1P Pathway Network in Sickle Cell Disease
Biomedical Engineering	Connor Crowley	Biochemistry	Michelle LaPlaca	Mass Spectrometry Analysis of Traumatic Brain Injury
Biomedical Engineering	Gerina Kim	Biomedical Engineering	Ravi Bellamkonda	Nanofiber-based Tumor Migration for Glioblastoma Multiforme
Biomedical Engineering	Robert Kretschmar	Biomedical Engineering	Ravi Bellamkonda	Functional testing of electrodes in vivo and in vitro to validate hollow cortical electrode design
Biomedical Engineering	Michael Merritt	Biomedical Engineering	Shella Keilholz	Evaluating the effectiveness of transcranial direct current stimulation using fMRI

Biomedical Engineering	Laura Tucker	Biomedical Engineering	Thomas Barker	Characterization of fibrin probes for cardiovascular disease imaging applications
Biomedical Engineering	Mohamad Ali Najia	Biomedical Engineering	Todd McDevitt	Influencing Encapsulated Stem Cell Factor Secretion through Hypoxic Conditioning
Biomedical Engineering	Ant Yucesoy	Biomedical Engineering	Younan Xia	Synthesis of Gold Nanocages for Cancer Theranostic Applications
Chemical and Biomolecular Engineering	Sarah Roethel	Materials Science & Engr	Dennis Hess	Design of Superhydrophobic Paper Surfaces with Acetylene Plasma Enhanced Etching and Deposition
Chemical and Biomolecular Engineering	Carahline Stark	Chemical and Biomolecular Eng	Julie Champion	Investigating the Role of Fiber Length on Phagocytosis and Inflammation
Chemical and Biomolecular Engineering	Lara Tucci	Chemical and Biomolecular Eng	Mark Prausnitz	Drug Delivery Using Laser Activated Carbon Nanoparticles
Chemical and Biomolecular Engineering	Lisa Dinh	Biochemistry	Mark Styczynski	Metabolites as Biomarkers for Lobomycosis in Bottlenose Dolphins (<i>Tursiops truncatus</i>) from the Indian River Lagoon, Florida
Chemical and Biomolecular Engineering	Jason Iandoli	Biomedical Engineering	Michelle Dawson	Role of Focal Adhesions in the Inverse Response of Cancer Cells from Different Sources to Varying Substrate Rigidity
Chemical and Biomolecular Engineering	Kyle Jones	Chemical Engineering	Sven Behrens	Colloidal Sand Castles
Civil & Environmental Engineering	Brett Reichard	Civil Engineering	David Frost	Interface Shear Strength Characterization of Geomembranes and Geotextiles, Specifically in Determining Mitigation Techniques for Landfill Liner Degradation
Civil & Environmental Engineering	James Kipp	Environmental Engineering	Jim Spain	Determination of microbial metabolic effects on allelochemical interactions between <i>festuca rubra commutata</i> and <i>lactuca sativa</i> in soil
Civil & Environmental Engineering	Audrey Shaak	Civil Engineering	Jochen Teizer	Integrating RFID Tracking Technology and Entrance Portals for Increased Construction Site Safety and Productivity
Civil & Environmental Engineering	Jeremy Wetherford	Civil Engineering	Jochen Teizer	An Algorithm for Leading Indicator Data Collection and Analysis Using Proximity Warning and Alert Technology
Electrical & Computer Engineering	Priya Bajaj	Electrical Engineering	Dr. John Copeland	A Network Security Attack Repository for a Competition-Based Network Security Lab
Electrical & Computer Engineering	William Cangelosi	Chemical and Biomolecular Eng	Mark Allen	Design and Development of Biodegradable, Biocompatible Batteries to Power Active in Vivo Devices
Electrical & Computer Engineering	Siddhartha Datta Roy	Electrical & Computer Engr	Pamela Bhatti	A Vestibular Rehabilitation Head Motion-Monitoring System: Signal Processing and User Interface Development
Electrical & Computer Engineering	Penyen Chi	Computer Engineering	Seculk Uluagac	GUSTO: Gesture-based 3D User Authentication Technology with Biometric Features
Materials Science & Engineering	Robert Carson	Mechanical Engineering	Ken Gall	Effects of Processing Techniques to Improve Cellular Adhesion have on Mechanical Properties of PEEK
Materials Science & Engineering	Abigail Halim	Materials Science & Engr	Rosario Gerhardt	Thin Films Made from Colloidal Antimony Tin Oxide Nanoparticles for Transparent Conductive Applications
Mechanical Engineering	Tsz Li	Mechanical Engineering	Alexander Alexeev	Aerodynamics of flexible flapping wings with ground effect
Mechanical Engineering	Katherine Polhemus	Mechanical Engineering	Alexander Alexeev	Modeling synthetic vesicles that can release and capture solutes
Mechanical Engineering	Nan Wei	Mechanical Engineering	Bo Feng	Manipulation of Thermal Conductivity Using Mechanical Strain
Mechanical Engineering	Varija Agarwal	Nuclear & Radiological Engr	Chaitanya Deo	Atomistic Modeling of Zirconium under Irradiation
Mechanical Engineering	Elton Chen	Nuclear & Radiological Engr	Chaitanya Deo	Atomistic modeling of phases and interfaces in metallic Uranium
Mechanical Engineering	Alisha Kasam	Mechanical Engineering	Christiaan Paredis	Statistical Characterization of Weather Data for Building Simulation
Mechanical Engineering	Bruce Berry	Nuclear & Radiological Engr	David Hu	Investigating the Ability of Mosquitoes to Fly in Fog
Mechanical Engineering	David Kim	Mechanical Engineering	David Hu	The Effects of Dew Deposition on Mosquitoes
Mechanical Engineering	Jonathan Pham	Biomedical Engineering	David Hu	The Hydrodynamic of Micturition
Mechanical Engineering	Peter Shankles	Polymer, Textile & Fiber Engr	David Hu	Mosquito Flight: The Effect of Fog Droplets on Haltere Function
Mechanical Engineering	Susan Hastings	Biomedical Engineering	David Ku	Thrombosis in Pediatric ECMO

Mechanical Engineering	Lee Stokes	Mechanical Engineering	Minami Yoda	Experimental Studies of Helium-Cooled Divertors for Magnetic Fusion Reactors
Mechanical Engineering	Ravi Haksar	Mechanical Engineering	Raghuram Pucha	Structure Property Relations of Carbon Nanotubes for RVE Models
Mechanical Engineering	Ke Xiao	Mechanical Engineering	Steven Liang	Single-Grit Magnetoabrasion for Free Form Micro-Machining
Mechanical Engineering	Bruno Rego	Biomedical Engineering	Todd Sulchek	High-Speed Microfluidic Particle Sorting by Size
Mechanical Engineering	Chelsea Fechter	Biomedical Engineering	Robert Guldberg	Characterization of Osteoarthritis Progression in a Mouse Medial Meniscal Destabilization Model Using Contrast-Based Micro-CT
COS				
Applied Physiology	Jaemin Sung	Biomedical Engineering	Christopher Hovorka	A novel lower-limb orthosis enhances rather than reduces muscle activation during walking
Biology	Lahari Shetty	Biology	Francesca Storici	Examining Effect of Mutations of RNase H2 Subunits on Enzymatic Activity of RNase H2 in Presence and Absence of RNase H1 in <i>Saccharomyces cerevisiae</i>
Biology	Amrita Kaimal	Psychology	Gregory Gibson	The Facial Expression Project
Biology	Ashley Reavis	Biomedical Engineering	John McDonald	Transfection of Ovarian Cancer HEY Cells with Sec23A
Biology	Agnes Ho	Biology	Terry Snell	Analyzing Patterns of Gene Expression in Corals Under Exposure to Differential Sunscreen Treatments
Biology	Kristine Phillips	Biology	Todd Streebman	Tooth and Taste Bud Density in Malawi Cichlids
Chemistry & Biochemistry	Jiby Yohannan	Biochemistry	Bridgette Barry	Biomimetic Beta Hairpin Peptides: Prototypes for Artificial Solar Energy Conversion
Chemistry & Biochemistry	Kabir Dhada	Chemistry	L. Andrew Lyon	A Hybrid Bio-Synthetic Approach to New Hemostatic Agents
Chemistry & Biochemistry	Dana Freeman	Biochemistry	Raquel Lieberman	Myocilin-OLF Structure Determination: Phase Solution of Myocilin-OLF via Crystallization of Mutant K398R
Physics	Alexander Tarr	Physics	Alberto Fernandez-Nieves	Drag Force in Viscocolelastic Fluids
Physics	Zachery Anderson	Physics	Jennifer Curtis	Optical Trapping in a Complex Refractive Index Environment
Psychology	Haoliang Yang	Industrial Engineering	Paul Verhaeghen	Effect of Sleep Deprivation on Attention: An EEG Investigation
Psychology	Gregory Hughes	Psychology	Richard Catrambone	Augmented Reality Learning: Applying Optimal Augmentation Training for Visual Categorization of Football Formations
Psychology	Shelby Long	Psychology	Tracy Mitzner	Understanding Younger and Older Adults' Trust in Service Robots
IAC				
International Affairs	Nicholas Barker	Int'l Affairs & Mod Lang	Lawrence Rubin	The Effect of Iran's Nuclear Armament on its Relationship with Non-State Affiliates and the Implications for US Policy in the Middle East
Literature, Communication, & Culture	Matthew Guzdial	Computational Media	Brian Magerko	Living Room Play
Public Policy	Jordan Lockwood	Public Policy	Dr. Roberta Berry	Cognitive Heuristics in Science & Technology Policymaking and the Implications for Educating Future Participants in the Policymaking Process
Travel				
History, Technology, & Society	Joyce Sharpe	History, Technology, & Society	John Tone	Informed Consent and the United States Army Yellow Fever Commission: A Pretense for Bioethics?
History, Technology, & Society	Marcela Moreno	History, Technology, & Society	John Tone	Informed Consent and the United States Army Yellow Fever Commission: A Pretense for Bioethics?
Biomedical Engineering	Kevin Kells	Biomedical Engineering	May Wang	LED Light Source for Fluorescence Endoscopy Using Quantum Dots
Ivan Allen College	Paul Zaitsev	Computational Media	Lisa Yaszek	Interdisciplinary Problem Solving Using Science Fiction Video Games
Literature, Communication and Culture	Keith Johnson	Computational Media (CM)	Lisa Yaszek	Science Fiction in Video Games and Educational Media
Literature, Communication and Culture	Allison Braden	International Affairs and Modern Language (IAML)	Karen Head	Preparing Staff for ESL Tutoring at a New Communication Center
Literature, Communication and Culture	Lauren Townsend	Science, Technology, and Culture (STC)	Karen Head	Preparing Staff for ESL Tutoring at a New Communication Center

Materials Science and Engineering	Kwan Ho Ko	Mechanical Engineering (ME)	Seung Soon Jang	Effect of Temperature on Nanophase-segregation and Transport in Polysulfone-Based Anion Exchange Membrane Fuel Cell: Molecular Dynamics Simulation Approach
Materials Science and Engineering	Abigail Halim	Materials Science and Engineering (MSE)	Rosario Gerhardt	Thin Films Made from Colloidal Antimony Tin Oxide Nanoparticles for Transparent Conductive Applications
Materials Science and Engineering	Ryan Gussenhoven	Biochemistry (BCHM)	Rosario Gerhardt	Fabrication and Characterization of Antimony Tin Oxide Nanoparticle Networks Inside Polystyrene
Biomedical Engineering	Marc Plaisance	Biomedical Engineering (BMED)	Rene Olivares-Navarrete	Cellular Response to Surface Wettability Gradient on Microtextured Titanium Surfaces
Industrial and Systems Engineering	Manav Bhatia	Industrial Engineering (IE)	Chen Zhou	Energy Efficiency in Transportation - A Comparative Study between Delhi and Mumbai
Materials Science and Engineering	Hyemin Lee	Mechanical Engineering (ME)	SeungSoon Jang	Water Treatment by Using Simulation
Biomedical Engineering	Frederick Damen	Biomedical Engineering (BMED)	Xiaoping Hu	Derivation of Unbiased Anatomical and Diffusion MRI Templates of Primate Brains for Cross-Species Analysis
Biomedical Engineering	Jim Schwoebel	Biomedical Engineering (BMED)	Barbara Fasse	Systemizing Medical Device Entrepreneurship through Undergraduate Student Initiatives
Chemical Engineering	Reid Erwin	Chemical and Biomolecular Engineering (CHBE)	Yoshiaki Kawajiri	Modeling, Parameter Estimation, and Simulation of Non-Linear Simulated Moving Bed Chromatography
Civil and Environmental Engineering	Rajkumar Krishnan	Environmental Engineering (ENVE)	Konstantinos Konstantinidis	The role of the rare biosphere in degrading 2,4-dichlorophenoxyacetic acid and 3-nitrotyrosine in Lake Lanier
Electrical and Computer Engineering	Allison Del Giorgio	Electrical and Computer Engineering (ECE)	Chrisopher Rozell	A sparse coding model of V1 produces surround suppression effects in response to natural scenes