

Fall 2010 President's Undergraduate Research Awards

Award School	Student Name	Student Major	Mentor Name	Paper Title	Funding Type
College of Architecture					
College of Architecture	Giles, Candace	Architecture	Irizarry, Javier	Analyzing the Existence of Gender Roles in Sustainability Practice	Salary
College of Architecture	Utting, Brittany	Architecture	Swarts, Matthew E.	Ephemeral Cities: Using cellular automata to model growth patterns of virtual tent cities	Salary
College of Architecture	Zhou, Jingwei	Industrial and Systems	Ashuri, Baabak	Life Cycle Cost Analysis and Risk Analysis of Highway Improvement and Expansion	Salary
College of Computing					
College of Computing	Narayan, Karthik	Computer Science	Isbell Jr, Charles Lee	Modeling Sub-rational Agents in Multiagent Systems	Salary
College of Engineering					
Aerospace Engineering	Lu, Charles	Mechanical Engineering	Lieuwen, Timothy Charles	Effects of Transverse Acoustic Waves on Swirl Stabilized Flames for Gas Turbine Applications	Salary
Aerospace Engineering	Mandalia, Amit	Aerospace Engineering	Lieuwen, Timothy Charles	Measurements of the Local Turbulent Flame Speed in a Low-Swirl Burner using High Speed OH PLIF and PIV	Salary
Aerospace Engineering	Mannino, Jared	Aerospace Engineering	Lieuwen, Timothy Charles	Heat Release From A Swirl Stabilized Flame During Transverse Acoustic Excitation	Salary
Aerospace Engineering	Morgan, Jonathan	Aerospace Engineering	Lieuwen, Timothy Charles	Particle Image Velocimetry of Swirl-Stabilized Combustors in Response to Changes in Geometry and Flow Conditions	Salary
Aerospace Engineering	Raghunath, Kishen	Aerospace Engineering	Komerath, Narayanan M	John J. Harper Wind Tunnel at Georgia Tech Performance and Optimization	Salary
Aerospace Engineering	Reyes Castro, Luis Ignacio	Aerospace Engineering	Tsiotras, Panagiotis	Transfer Functions in the Control of Gyroscopic Forces for the Coordinated Motion of Networked Vehicles	Salary
Aerospace Engineering	Sullivan, Ryan	Mechanical Engineering	Lieuwen, Timothy Charles	Flame Shape Analysis of Lean, Premixed, Swirl-Stabilized Combustors in Response to Geometric and Operational Changes	Salary
Biomedical Engineering	Ahmad, Mona	Biology	Bellamkonda, Ravi Venkat	Determining the mechanism of action of a novel drug in RT2, C6, 9L, and Neurospheres	Salary
Biomedical Engineering	Bracaglia, Laura	Biomedical Engineering	Haggerty, Christopher Mark	Fluid Mechanical Analysis of Surgically Reconstructed Aortas	Salary
Biomedical Engineering	Brasuk, Katie	Biomedical Engineering	Kemp, Melissa Lambeth	NF-kB Regulation Through Redox Components in Pediatric Acute Lymphoblastic Leukemia	Salary
Biomedical Engineering	Britt, Chelsea	Biomedical Engineering	Boyan, Barbara D	Determination of Factors Regulated During Craniosynostosis	Salary
Biomedical Engineering	Bui, Hieu	Biomedical Engineering	Temenoff, Johnna Sue	Mesenchymal stem cell spreading in protease-sensitive hydrogels	Salary
Biomedical Engineering	Buice, Dana	Biomedical Engineering	Yoganathan, Ajit	The Effects of Disease and a Three-Dimensional, Saddle-Shaped Annulus on Tricuspid Valve Leaflet Strain	Salary
Biomedical Engineering	Chism, Benjamin	Biomedical Engineering	Yoganathan, Ajit	Investigating the Efficacy of Papillary Muscle Relocation in an In-Vitro Model of Ischemic Mitral Regurgitation	Salary
Biomedical Engineering	Cuenca, Natalia	Biomedical Engineering	Boyan, Barbara D	Non-classical effects of estrogen on the transcription of factors promoting breast cancer invasion to bone	Salary

Biomedical Engineering	Damen, Frederick	Biomedical Engineering	Hu,Xiaoping	Mapping Anatomical Connectivity of the Cerebral Cortex and Its Applications in Evolution of Aging in Primates	Salary
Biomedical Engineering	Dehitta, Eleanor	Biomedical Engineering	Bellamkonda,Ravi Venkat	Assessment of the Effect of Imipramine Blue, a Novel Anti-invasive Compound, on Vascular Permeability in Glioblastoma	Salary
Biomedical Engineering	Gorti, Harika	Biology	Yoganathan,Ajit	Significance of Runx2 pathway in stretch and pressure induced AV calcification	Salary
Biomedical Engineering	Hill, Abby	Biomedical Engineering	Kemp,Melissa Lambeth	Role of Redox Regulatory Molecules in T Cell Senescence	Salary
Biomedical Engineering	Huber, Richard	Biomedical Engineering	Bellamkonda,Ravi Venkat	DEVELOPING AND TESTING BIODEGRADABLE SCAFFOLDS TO PROMOTE PERIPHERAL NERVE REGENERATION	Salary
Biomedical Engineering	Jiwani, Ibaad	Biology	Wang,Yun	Cross-talk Between Hypoxia Signaling and VitminD3 signaling in Controlling Growth Plate Development	Salary
Biomedical Engineering	Koenig, Seth	Biomedical Engineering	Bellamkonda,Ravi Venkat	PEGylation of Chondroitinase ABC to increase in vivo Stability and Diffusion	Salary
Biomedical Engineering	Murphy, Patricia	Biology	Karumbaiah,Lohitash	Cellular Responses in Neural Degeneration: In vitro Analysis of Potential Neuronal Receptors for Chondroitin Sulfate Proteoglycans	Salary
Biomedical Engineering	Patel, Janki	Biomedical Engineering	Bellamkonda,Ravi Venkat	Developing a More Efficient Drug Delivery System (Lipid Microtubules)	Salary
Biomedical Engineering	Ries, Jared	Biomedical Engineering	Oshinski,John	A Computational Study of the Role of Wall Shear Stress in Carotid Wall Thickening	Salary
Chemical and Biomolecular Engineering	Al-Khalil, Bilal	Mathematics	Bommarius,Andreas S	Co-Evolution of Retinoic Acid Receptor Variants Activated by Ampicillin	Salary
Chemical and Biomolecular Engineering	Brown, Courtney	Chemical and Biomolecular	Nair,Sankar	Computational Screening of Metal-Organic Framework Structures for Separations Applications	Salary
Chemical and Biomolecular Engineering	Clemmons, Crystal	Chemical and Biomolecular	Behrens,Sven Holger	Nonionic Surfactants for Charge Control in Nonpolar Liquids	Salary
Chemical and Biomolecular Engineering	Edgar, Steven	Chemical and Biomolecular	Breedveld,Laurens Victor Adriaan	Rheological Properties of Algae Suspensions	Salary
Chemical and Biomolecular Engineering	Faltermeier, Sean	Chemical and Biomolecular	Eckert,Charles A	Cost-Effective Carbon Dioxide Capture Using Reversible Ionic Liquids	Salary
Chemical and Biomolecular Engineering	Hang, Christine	Nuclear and Radiological	Dawson,Michelle R	Development of Engineered Mesenchymal Stem Cell Gene Delivery Vectors that Inhibit Tumor Angiogenesis	Salary
Chemical and Biomolecular Engineering	Kim, Jisoo	Chemical and Biomolecular	Hess,Dennis W	Optimization of Shape and Size of Platinum Nanoparticles Deposited on Carbon Nanotubes for Use in Fuel Cells	Salary
Chemical and Biomolecular Engineering	Tallarita, Adam	Chemical and Biomolecular	Prausnitz,Mark R	Microneedles to Target the Trabecular Meshwork	Salary
Chemical and Biomolecular Engineering	Tong, Ho Ming	Chemical and Biomolecular	Nair,Sankar	Poly(vinyl alcohol)- Aluminosilicate Nanotube Composite Membranes for Ethanol-Water Separation by Pervaporation	Salary
Chemical and Biomolecular Engineering	Yong, Chun	Biomedical Engineering	Sambanis,Athanassios	In Vitro Culturing of Alginate Microcapsules to Assess In Vivo Stability	Salary
Chemical and Biomolecular Engineering	Yong, Chun	Biomedical Engineering	Sambanis,Athanassios	Long-Term Quantitative In Vivo Characterization of Alginate Microcapsules in Balb/c Mice	Travel
Civil and Environmental Engineering	Hotle, Susan	Civil and Environmental	Garrow,Laurie Anne	Sensitivity Analysis of Toronto's Activity-Based Models	Salary
Electrical and Computer Engineering	Messina, Troy	Electrical and Computer	Gaylord,Thomas K	Periodic Structure Fabrication by Multiple Beam Interference Lithography	Salary
Materials Science & Engineering	Bhatnagar, Shivani	Biomedical Engineering	Gall,Kenneth A	Poly(caprolactone)-based Poly(β -amino ester) Networks for Cardiovascular Therapies	Salary
Mechanical Engineering	Jackman, Chris	Biomedical Engineering	Gleason Jr.,Rudolph Lawson	The Effect of Biochemical Stimulation on Mechanical Properties of Collagen-based Tissue Engineered Blood Vessels	Salary

Mechanical Engineering	Kim, Blair	Mechanical Engineering	Bassiri-Gharb,Nazanin	Vacuum-Assisted Infiltration of Piezoelectric PZT	Salary
Mechanical Engineering	Rath, Rutwik	Biomedical Engineering	Garcia,Andres J	VEGF-stimulated Angiogenic Sprouting in Diabetic and Healthy Rats	Salary
Polymer, Textile, and Fiber Engineering	Goss, Emily	Polymer, Textile, and Fiber	Shofner,Meisha Lei	Effects of Processing Conditions on Mixing Time Using a Twin Screw Extruder	Salary
College of Management					
College of Management	Hill, Keegan	Management	Zhang,Han	Online Uncertainies and Customer Satisfaction	Salary
College of Management	White, Thomas	Management	Zhang,Han	Negative Biases in Online Reviews and the Formation of Online Trust	Salary
College of Science					
Biology	Poole, John (Jack)	Mechanical Engineering	Yen,Jeannette	Bio Inspired Design: Living Wall Water Filtration System	Salary
Biology	Small, James	Biology	McDonald,John F	A Novel Method for Finding Genetic Links Between Breast and Ovarian Cancer	Salary
Biology	Tippur, Ankita	Biomedical Engineering	Chernoff,Yury O	Sup35 prion poisoning as a result of genetic differences in closely related Saccharomyces yeast strains	Salary
Chemistry and Biochemistry	Chen, Michael	Chemistry and Biochemistry		Understanding the evolution of the ribosome as a way to validate the RNA world hypothesis and the chemical origins of life	Salary
Chemistry and Biochemistry	Drescher, Stephan	Chemistry and Biochemistry	Oyelere,Adegboyega K	Novel Proteasome Inhibitors for Anti-cancer Therapy	Salary
Chemistry and Biochemistry	Flanagan, Molly	Chemistry and Biochemistry	Kroger,Nils Klaus	Increasing the Efficiency of Diatoms as a Source of Biofuel	Salary
Chemistry and Biochemistry	Herrel, Kristin	Chemistry and Biochemistry	Fernandez,Facundo M	Imaging Desorption Electrospray Ionization (DESI) Mass Spectrometry for Counterfeit Drug Detection	Salary
Chemistry and Biochemistry	Sarwar, Mysha	Chemistry and Biochemistry	Fahrni,Christoph J.	High contrast cation-selective fluorescent probes: synthesis of ligand scaffolds for synergetic conformational and electronic switching	Salary
Physics	Froehlich, Stefan	Physics	Cvitanovic,Predrag	Symmetry reduction of shear turbulent flows in pipe and planes geometries	Salary
Psychology	La Forge, Stephanie	Psychology	Hertzog,Christopher K	Age Differences in Strategy-Based Skill Acquisition	Salary
Georgia Tech Research Institute (GTRI)					
GTRI	Scarborough, William	Chemical and Biomolecular	Fuller,Thomas F	Measuring Transport of Vanadium Ions in Membranes Used for Redox-Flow Batteries	Salary
GTRI	Worthington, Lisa	Mechanical Engineering	Ready,William Judson	3D GaAs Photovoltaics	Salary
Ivan Allen College					
Economics	Wharton, Kate	Economics	Uwaifo,Ruth O	Assessing the Economic Component of Internal Migration and Forced Displacement in Colombia	Salary
Literature,Com & Culture (LCC)	Ead, Samer	Computational Media	Pearce,Celia	Mermaids Research	Salary
Literature,Com & Culture (LCC)	Gergely, Jennifer	Computational Media	Yaszek,Lisa	Examining the New Space Opera and its evolution over the past twenty years	Salary
Literature,Com & Culture (LCC)	Pettus, Amira	Science, Technology and	Reilly,Justine Courtney	The Milk of Human Corruptions: Liconsa and the Persistence of Childhood Malnutrition in Mexico	Salary

Literature, Com & Culture (LCC)	Turner, Nicole	Science, Technology and	Pollock, Anne	Dynamic Families: Lesbian Kinship in the Social, Cultural, and Legal Context	Salary
Public Policy	O'Brien, John	Public Policy	Matisoff, Daniel Charles	Characterizing Privatization Trends within U.S. State Parks	Salary