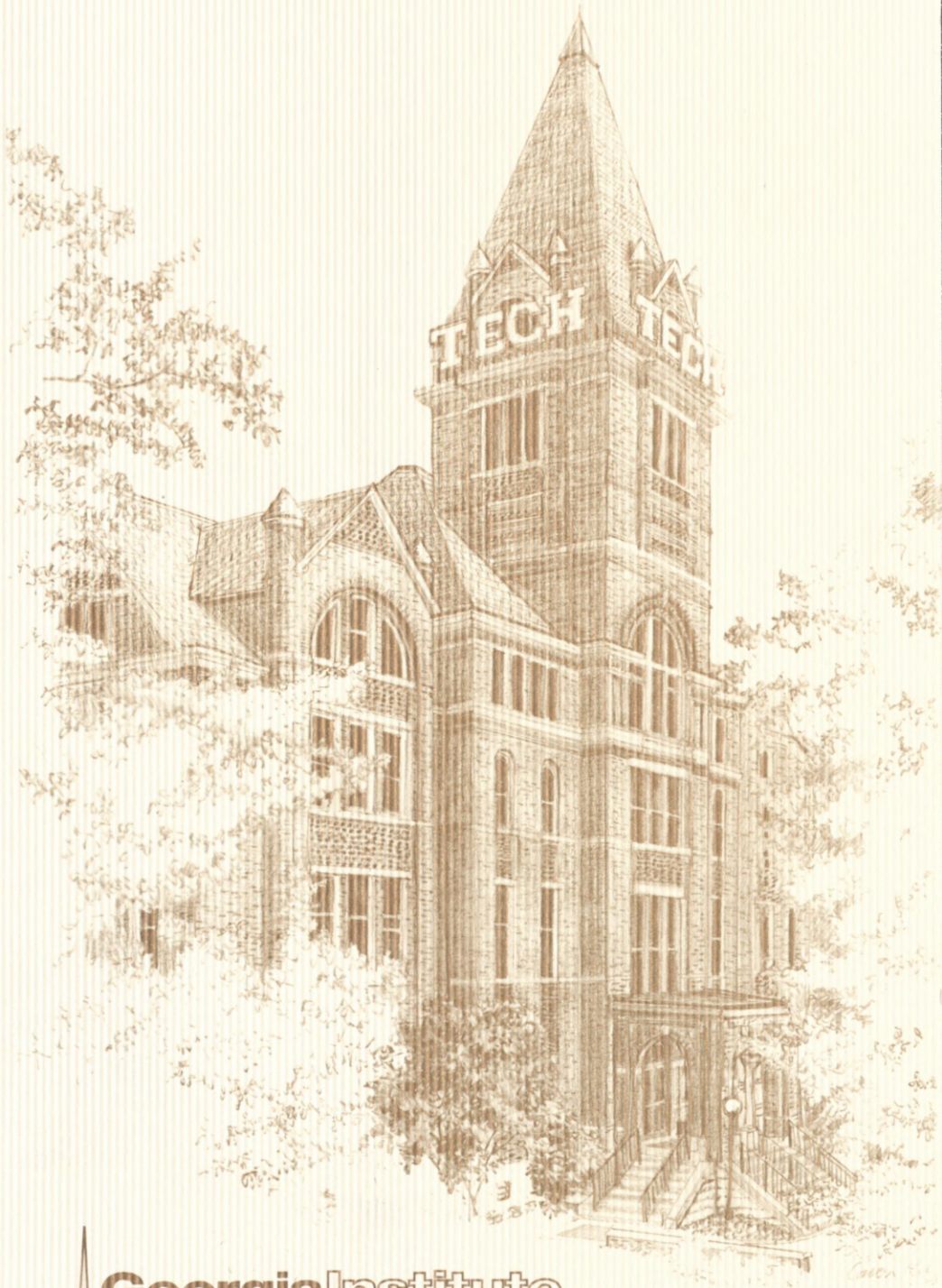


# Commencement Ceremony



**Georgia Institute  
of Technology**

*Fall 2005*



*Welcome to the 223rd Commencement of the Georgia Institute of Technology. The entire Tech community extends cordial greetings to parents, spouses, relatives, and friends gathered here for this significant event.*

*For approximately 1,350 undergraduate and graduate students, today's ceremony recognizes their academic achievements at Georgia Tech and inaugurates a new era in their careers.*



# *Fall Semester • Undergraduate Ceremony*

*December 17, 2005 • 9:00 a.m. • Alexander Memorial Coliseum*

PROCESSIONAL

*Georgia Tech Commencement Ensemble,  
coordinated by Christopher Moore,  
Department of Music*

MASTER OF CEREMONIES

*Dr. G. Wayne Clough, President*

REFLECTION

*Rev. Steve Fazenbaker,  
Director and Campus Minister,  
Wesley Foundation at Georgia Tech*

NATIONAL ANTHEM

*Georgia Tech Commencement Ensemble*

COMMENCEMENT  
ADDRESS

*The Honorable Shirley Franklin  
Mayor, City of Atlanta*

PRESENTATION OF  
HONORARY DEGREE

*Dr. Clough*

INTRODUCTION OF  
ACADEMIC DEANS

*Dr. Anderson Smith  
Vice Provost,  
Undergraduate Studies  
and Academic Affairs*

PRESENTATION OF  
UNDERGRADUATE  
DEGREE CANDIDATES

*Associate Dean Merrick Furst  
College of Computing  
Dean Sue V. Rosser  
Ivan Allen College of Liberal Arts  
Dean Thomas D. Galloway  
College of Architecture  
Dean Terry C. Blum  
College of Management  
Associate Dean E. Kent Barefield  
College of Sciences  
Dean Don P. Giddens  
College of Engineering*

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INDUCTION INTO THE  
ALUMNI ASSOCIATION

Mr. J. William Goodhew III,  
Class of 1961  
Chairman, Georgia Tech  
Alumni Association

ALMA MATER\*

*Georgia Tech Commencement Ensemble*

FACULTY RECESSIONAL

*Georgia Tech Commencement Ensemble*

"RAMBLIN' WRECK" \*

*Graduates and Audience*

*The listing of bachelor's degree graduates begins on page 21.*

*Honors Qualifications: Honor designations are for undergraduates at Georgia Tech who have met the minimum residency hours requirement of seventy hours, as well as the minimum GPA.*

*To achieve honor, the minimum GPA is 3.15.*

*To achieve high honor, the minimum GPA is 3.35.*

*To achieve highest honor, the minimum GPA is 3.55.*

*Changes in honor status may also occur after final printing.*

*You are requested to refrain from loud expressions of pleasure for individual graduates. Such expressions detract from the recognition due the next graduate in line. Your cooperation is respectfully requested.*

*\*Please turn to page 41 for song lyrics.*



*Fall Semester • Master's and Ph.D. Ceremony  
December 17, 2005 • 3:00 P.M. • Alexander Memorial Coliseum*

PROCESSIONAL

*Georgia Tech Commencement Ensemble,  
coordinated by Christopher Moore,  
Department of Music*

MASTER OF CEREMONIES

*Dr. G. Wayne Clough, President*

REFLECTION

*Rev. Megan J. Jones,  
Lutheran Center at Georgia Tech*

NATIONAL ANTHEM

*Georgia Tech Commencement Ensemble*

COMMENCEMENT  
ADDRESS

*Dr. Michael Griffin,  
Administrator, National Aeronautics  
and Space Administration*

PRESENTATION OF  
DOCTORAL DEGREE  
CANDIDATES

*Dr. Charles Liotta,  
Vice Provost for Research  
and Dean of Graduate Studies*

CONFERRING  
OF DEGREES

*Dr. Clough*

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PRESENTATION OF  
MASTER'S DEGREE  
CANDIDATES

*Dr. Liotta*

CONFERRING  
OF DEGREES

*Dr. Clough*

INDUCTION INTO THE  
ALUMNI ASSOCIATION

*Mr. J. William Goodhew III,  
Class of 1961  
Chairman, Georgia Tech  
Alumni Association*

ALMA MATER\*

*Georgia Tech Commencement Ensemble*

FACULTY RECESSIONAL

*Georgia Tech Commencement Ensemble*

"RAMBLIN' WRECK" \*

*Graduates and Audience*

*You are requested to refrain from loud expressions of pleasure for individual graduates.  
Such expressions detract from the recognition due the next graduate in line.  
Your cooperation is respectfully requested.*

*\*Please turn to page 41 for song lyrics.*



# Doctoral Degree Candidates

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## Doctor of Philosophy Bioinformatics

*Luke Edwin Ulrich*

Thesis: "Comparative Genomics of Microbial Signal Transduction"  
Advisor: Dr. Mark Borodovsky

## Doctor of Philosophy Bioengineering

*Daniel Kacy Cullen*

Thesis: "Traumatically Induced Degeneration and Reactive Astrogliosis in Three-dimensional Neural Co-cultures: Factors Influencing Neural Stem Cell Survival and Integration"  
Advisor: Dr. Michelle C. LaPlaca

*Ning Jiang*

Thesis: "Kinetic Studies of Fc Gamma Receptor and T Cell Receptor Interacting with Respective Ligands"  
Advisor: Dr. Cheng Zhu

*Andrea Nicole Lay*

Thesis: "Neuromuscular Coordination During Slope Walking"  
Advisor: Dr. T. Richard Nichols

*Janna Kay Mouw*

Thesis: "Mechanoregulation of Chondrocytes and Chondroprogenitors: Role of TGF-Beta and Smad Signaling"  
Advisor: Dr. Marc E. Levenston

*Nitin Nitin*

Thesis: "Optical and MR Molecular Imaging Probes and Peptide-based Cellular Delivery for RNA Detection in Living Cells"  
Advisor: Dr. Gang Bao

*Robyn Kathryn Schlicher*

Thesis: "Mechanistic Features of Ultrasound-mediated Bioeffects"  
Advisor: Dr. Mark R. Prausnitz

*Amanda Kathleen Wake*

Thesis: "Modeling Fluid Mechanics in Individual Human Carotid Arteries"  
Advisor: Dr. Don P. Giddens

## Doctor of Philosophy Algorithms, Combinatorics, and Optimization

*Paul Joseph Wollan*

Thesis: "Extremal Functions for Graph Linkages and Rooted Minors"  
Advisor: Dr. Robin Thomas

## Doctor of Philosophy Computer Science

*Tianying Chang*

Thesis: "Enabling Scalable Information Sharing for Distributed Applications through Dynamic Replication"  
Advisor: Dr. Mustaque Ahamad

*Enylton Machado Coelho*

Thesis: "Spatially Adaptive Augmented Reality"  
Advisor: Dr. Blair MacIntyre

*Jason Lynn Elliott*

Thesis: "AquaMOOSE 3-D: A Constructionist Approach to Math Learning Motivated by Artistic Expression"  
Advisor: Dr. Amy S. Bruckman

*Jinliang Fan*

Thesis: "Enabling Performance Tradeoffs through Dynamic Configuration of Advanced Network Services"  
Advisor: Dr. Mostafa H. Ammar

*Meng Guo*

Thesis: "Supporting Scalable and Resilient Video Streaming Applications in Evolving Networks"  
Advisor: Dr. Ellen Zegura

*Lonnie David Harvel*

Thesis: "Using Student-generated Notes as an Interface to a Digital Repository"  
Advisor: Dr. Gregory D. Abowd

*Byron Anthony Jeff*

Thesis: "A System for Using Preceiver Input to Vary the Quality of Generative Multimedia Performances"  
Advisor: Dr. Karsten Schwan

*Carlos Jensen*

Thesis: "Designing for Privacy in Interactive Systems"  
Advisor: Dr. Colin Potts

---

*Pradnya Karbhari*

Thesis: "Throughput and Fairness Considerations in Overlay Networks for Content Distribution"  
Advisor: Dr. Mostafa H. Ammar

*Abhishek Kumar*

Thesis: "Network Data Streaming: Algorithms for Network Measurement and Monitoring"  
Advisor: Dr. Jun Xu

*Lakshmi Macheeri Ramaswamy*

Thesis: "Toward Efficient Delivery of Dynamic Web Content"  
Advisor: Dr. Ling Xu

*James Thomas Rowan Jr.*

Thesis: "Digital Family Portraits: Support for Aging in Place"  
Advisor: Dr. Elizabeth D. Mynatt

*Steven Alexander Spoon*

Thesis: "Demand-driven Type Inference with Subgoal Pruning"  
Advisor: Dr. Olin Shivers

*Eli Tilevich*

Thesis: "Software Tools for Separating Distribution Concerns"  
Advisor: Dr. Ioannis Smaragdakis

*Hao Wu*

Thesis: "Analysis and Design of Vehicular Networks"  
Advisor: Dr. Richard M. Fujimoto

*Wanxia Xie*

Thesis: "Supporting Distributed Transaction Processing Over Mobile and Heterogeneous Platforms"  
Advisor: Dr. Shamkant B. Navathe

*Li Xiong*

Thesis: "Resilient Reputation and Trust Management: Models and Techniques"  
Advisor: Dr. Ling Liu

### **Doctor of Philosophy Public Policy/Joint Program**

*Kathryn Taylor Brice*

Thesis: "The Effect of Linkages on Science and Technology Productivity at Historically Black Colleges and Universities"  
Advisor: Dr. Philip P. Shapira

*Christopher Scott Horne*

Thesis: "Toward an Understanding of the Revenue of Non-profit Organizations"  
Advisor: Dr. Gordon A. Kingsley

### **Doctor of Philosophy History and Sociology of Technology and Science**

*Elizabeth Haven Hawley*

Thesis: "American Publishers of Indecent Books, 1840-1890"  
Advisor: Dr. Andrea E. Tone

### **Doctor of Philosophy Architecture**

*Yan Zhang*

Thesis: "A Method to Predict Reverberation Time in Concert Hall Preliminary Design Stage"  
Advisor: Dr. Godfried L. Augenbroe

### **Doctor of Philosophy Earth and Atmospheric Sciences**

*Xingyi Gong*

Thesis: "A Comparison of Four NMHC Oxidation Mechanisms Using Specified Gas Mixtures and TRACE-P Field Data"  
Advisor: Dr. Douglas Davis

*Jason D. Ritchie*

Thesis: "The Distribution of Charge and Acidic Functional Groups in Natural Organic Matter: The Dependence on Molecular Weight and pH"  
Advisor: Dr. E. Michael Perdue

*Poulomi Sannigrahi*

Thesis: "Composition and Cycling of Natural Organic Matter: Insights from NMR Spectroscopy"  
Advisor: Dr. Ellery D. Ingall

*Tao Zeng*

Thesis: "Three-dimensional Modeling Analysis of Photochemical Processes in the Arctic and Northern Mid-latitudes"  
Advisor: Dr. Yuhang Wang

### **Doctor of Philosophy Applied Biology**

*John D. Parker*

Thesis: "Plant-Herbivore Interactions: Consequences for the Structure of Freshwater Communities and Exotic Plant Invasions"  
Advisor: Dr. Mark E. Hay



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**Doctor of Philosophy  
Psychology**

*Richard Chong Hyon Pak*

Thesis: "An Investigation of Perceptual Load, Aging, and the Functional Field of View"  
Advisor: Dr. Wendy A. Rogers

*Kimberly Andrews Wrenn*

Thesis: "The Big Five as Predictors of Procedural Justice Perceptions"  
Advisor: Dr. Todd J. Maurer

**Doctor of Philosophy  
Physics**

*Sergio Silva Botelho*

Thesis: "Functional Integral Approach to the BCS-BEC Evolution in D-wave Superconductors"  
Advisor: Dr. Carlos Sa'de Melo

*Wenxian Zhang*

Thesis: "Thermodynamic Properties of Spinor-1 Bose Gas"  
Advisor: Dr. Li You

**Doctor of Philosophy  
Chemistry**

*Zesheng An*

Thesis: "Perylene-based Materials: Potential Components in Organic Electronics and Optoelectronics"  
Advisor: Dr. Seth Marder

*Amy J. Campbell*

Thesis: "Design, Synthesis, and Evaluation of Cysteine Protease Inhibitors"  
Advisor: Dr. James C. Powers

*Christy Michelle Charlton*

Thesis: "Quantum Cascade Lasers for Mid-infrared Chemical Sensing"  
Advisor: Dr. Jiri Janata

*Hang Chen*

Thesis: "Modulation Effects on Organic Electronics"  
Advisor: Dr. Jiri Janata

*Kelly Joy Dennison*

Thesis: "Understanding HTLV-I Enzymology and Preparation and Characterization of Lead Inhibitors for the Treatment of HTLV-I Infection"  
Advisor: Dr. Suzanne B. Shuker

*George Themistoclis Lountos*

Thesis: "Structural and Mechanistic Insights from High-resolution Crystal Structures of the Toluene-4-Monooxygenase Catalytic Effector Protein, NAD(P)H Oxidase, and Choline Oxidase"  
Advisor: Dr. Allen M. Orville

*Qian Luo*

Thesis: "Chemical Vapor Deposition of Hafnium Oxynitride Films Using Different Oxidants"  
Advisor: Dr. William S. Rees

*Linda Manning*

Thesis: "The Crystal Structures of Xenobiotic Reductase A and B from *Pseudomonas Putida* II-B and *Pseudomonas Fluorescens* I-C: Structural Insight into Regiospecific Reactions with Nitrocompounds"  
Advisor: Dr. Allen M. Orville

*Peter Ivo O'Daniel*

Thesis: "Exploring Structural Diversity in Nucleoside and Nucleic Acid Drug Design"  
Advisor: Dr. Katherine L. Seley

*Luke Bennett Roberson*

Thesis: "Understanding Organic Thin Film Properties for Microelectronic Field-effect Transistors and Solar Cells"  
Advisor: Dr. Laren M. Tolbert

*Laurie Shireen Sanii*

Thesis: "Application of Spectroscopy to Protein Characterization"  
Advisor: Dr. Mostafa A. El-Sayed

*Isao Sasaki*

Thesis: "Higher-order Mobile Sensor System for Fast Detection of Gases"  
Advisor: Dr. Jiri Janata

*Qing Song*

Thesis: "Size- and Shape-controlled Synthesis and Superparamagnetic Properties of Spinel Ferrites Nanocrystals"  
Advisor: Dr. John Z. Zhang

*Yiqing Wang*

Thesis: "Grafted and Crosslinkable Polyphenyleneethynyls: Synthesis, Properties, and Their Applications"  
Advisor: Dr. Laren M. Tolbert

---

**Doctor of Philosophy  
Materials Science and Engineering**

*Devarajan Balaraman*

Thesis: "Ultra-thin Ceramic Films for Low-temperature Embedding of Decoupling Capacitors into Organic Wiring Boards"  
Advisor: Dr. Madhavan Swaminathan

*Kip Owen Findley*

Thesis: "Physically Based Models for Elevated Temperature, Low-cycle Fatigue Crack Initiation and Growth in Rene 88DT"  
Advisor: Dr. Ashok Saxena

*Puxian Gao*

Thesis: "Piezoelectric Nanostructures of Zinc Oxide: Synthesis, Characterization, and Devices"  
Advisor: Dr. Zhong L. Wang

*Silvia Liong*

Thesis: "A Multifunctional Approach to Development, Fabrication, and Characterization of Magnetite Composites"  
Advisor: Dr. William S. Rees

*Ying Liu*

Thesis: "Fabrication of Nanostructured Electrodes and Interfaces Using Combustion CVD"  
Advisor: Dr. Meilin Liu

*Curtis Wayne Neff*

Thesis: "Optical Properties of Superlattice Photonic Crystals"  
Advisor: Dr. Christopher Summers

*Xudong Wang*

Thesis: "Large-scale, Patterned Oxide Nanostructures: Fabrication, Characterization, and Applications"  
Advisor: Dr. Zhong L. Wang

*Melissa Ann Zubris Williams*

Thesis: "Design of FeCo Nanoalloy Morphology via Control of Reaction Kinetics"  
Advisor: Dr. Rina Tannenbaum

**Doctor of Philosophy  
Textile Engineering**

*Jong Seung Park*

Thesis: "Studies on Inclusion Complexes of Cyclodextrin and Dyes: I. Synthesis and Properties of Dye Rotaxane; II. Formation of Anisotropic Supramolecules"  
Advisor: Dr. Mohan Srinivasarao

**Doctor of Philosophy  
Industrial Engineering**

*James Paul Brooks*

Thesis: "Solving a Mixed-integer Programming Formulation of a Classification Model with Misclassification Limits"  
Advisor: Dr. Eva K. Lee

*Yahel Giat*

Thesis: "Venture Capital Financing with Staged Investment, Agency Conflict, and Asymmetric Beliefs"  
Advisor: Dr. Steven T. Hackman

*Jinxiang Gu*

Thesis: "The Forward Reserve Warehouse Sizing and Dimensioning Problem"  
Advisor: Dr. Leon F. McGinnis

*I-Hsuan Hong*

Thesis: "Decentralized Decision Making for Reverse Production Systems"  
Advisor: Dr. Jane C. Ammons

*Se-Kyoung Oh*

Thesis: "Procurement Mechanisms in the Presence of Learning by Doing"  
Advisor: Dr. Wedad J. Elmaghraby

*Zhendong Xia*

Thesis: "Pricing and Risk Management in Competitive Electricity Markets"  
Advisor: Dr. Shijie Deng

*Yudi Pranoto Xu*

Thesis: "The Effects of Human Decision Bias on Supply Chain Performance"  
Advisor: Dr. Paul M. Griffin



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**Doctor of Philosophy  
Aerospace Engineering**

*Sandeep Agarwal*

Thesis: "Aeromechanical Stability Augmentation Using Semi-active Friction-based Lead-lag Damper"  
Advisor: Dr. D. Stefan Dancila

*Michael Alexander Buonanno*

Thesis: "A Method for Aircraft Concept Exploration Using Multicriteria Interactive Genetic Algorithms"  
Advisor: Dr. Dimitrios N. Mavris

*Kwangtae Ha*

Thesis: "A Combined Piezoelectric Composite Actuator and Its Application to Wing/Blade Tips"  
Advisor: Dr. D. Stefan Dancila

*Suresh Kumar Kannan*

Thesis: "Adaptive Control of Systems in Cascade with Saturation"  
Advisor: Dr. Eric N. Johnson

*Ali Turker Kutay*

Thesis: "Neural Network-based Adaptive Output Feedback Control: Applications and Improvements"  
Advisor: Dr. Anthony J. Calise

*Venkatesh K. Madyastha*

Thesis: "Adaptive Estimation for Control of Uncertain Nonlinear Systems with Applications to Target Tracking"  
Advisor: Dr. Anthony J. Calise

*Vindhya Narayanan*

Thesis: "Non-equilibrium Thermomechanics of Multifunctional Energetic Structural Materials"  
Advisor: Dr. Sathyanaraya Hanagud

*Akiva Alexander Sklar*

Thesis: "A Numerical Investigation of a Thermodielectric Power Generator"  
Advisor: Dr. Ben T. Zinn

**Doctor of Philosophy  
Chemical Engineering**

*Ernesto J. Angueira Batista*

Thesis: "Novel Superacidic Ionic Liquid Catalysts for Arene Functionalization"  
Advisor: Dr. Mark G. White

*Derrick Bernard Callander*

Thesis: "Molecular Modeling of Polymer-free Volume Distribution"  
Advisor: Dr. Peter J. Ludovice

*Alexis Maureen Wrenn Hillock*

Thesis: "Crosslinkable Polymide Mixed-matrix Membranes for Natural Gas Purification"  
Advisor: Dr. William J. Koros

*Trevor PeterJarvis Hoskins II*

Thesis: "Characterization of Substituted Polynorbornenes for Advanced Lithography"  
Advisor: Dr. Clifford L. Henderson

*Delfi Krishna*

Thesis: "Investigation of the Role of Target Cell Factors in Retrovirus Transduction"  
Advisor: Dr. Joseph LeDoux

*William Clark Madden*

Thesis: "The Performance of Hollow Fiber Gas Separation Membranes in the Presence of an Aggressive Feed Stream"  
Advisor: Dr. William J. Koros

*Karen Marie Polizzi*

Thesis: "Tools for Maximizing the Efficiency of Protein Engineering"  
Advisor: Dr. Andreas S. Bommarius

*James Patrick Russum*

Thesis: "Controlled Radical Polymerizations in Miniemulsions: Advances in the Use of RAFT"  
Advisor: Dr. Christopher W. Jones

**Doctor of Philosophy  
Environmental Engineering**

*Jed Costanza*

Thesis: "Degradation of Tetrachloroethylene and Trichloroethylene under Thermal Remediation Conditions"  
Advisor: Dr. Kurt D. Pennell

*Wonyong Jang*

Thesis: "Unsteady Multiphase Flow Modeling of In-situ Air Sparging System in a Variably Saturated Subsurface Environment"  
Advisor: Dr. Mustafa M. Aral

*Sun-Kyoung Park*

Thesis: "Patriculate Modeling and Control Strategy for Atlanta, Georgia"  
Advisor: Dr. Armistead G. Russell

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*Patricia L. Taboada-Serrano*

Thesis: "Colloidal Interactions  
in Aquatic Environments:  
Effect of Charge Heterogeneity  
and Charge Asymmetry"  
Advisor: Dr. Sotira Yiacoumi

### **Doctor of Philosophy Civil Engineering**

*Leonardo Augusto Duenas-Osorio*

Thesis: "Interdependent  
Response of Networked Systems  
of Natural Hazards and  
Intentional Disruptions"  
Advisor: Dr. Barry Goodno

*Eric Wade Dumbaugh*

Thesis: "Safe Streets, Livable Streets:  
A Positive Approach to Urban  
Roadside Design"  
Advisor: Dr. Michael D. Meyer

*Timothy Matthew Evans*

Thesis: "Microscale Physical and  
Numerical Investigations of Shear  
Banding in Granular Soils"  
Advisor: Dr. James D. Frost

*Yue Li*

Thesis: "Fragility Methodology for  
Performance-based Engineering  
of Light-frame Residential  
Construction Subjected to  
Earthquakes and Hurricanes"  
Advisor: Dr. Bruce R. Ellingwood

*Mauricio Alejandro Lopez-Casanova*

Thesis: "Creep and Shrinkage  
of High-performance,  
Lightweight Concrete:  
A Multi-scale Investigation"  
Advisor: Dr. Lawrence F. Kahn

*Bryant G. Nielson*

Thesis: "Analytical Fragility Curves  
for Highway Bridges in Moderate  
Seismic Zones"  
Advisor: Dr. Reginald DesRoches

*Clifton Brock Woodson*

Thesis: "Thin Layers: Physical and  
Chemical Cues Contributing to  
Observed Copepod Aggregations"  
Advisor: Dr. Donald Webster

*Xuan Yang*

Thesis: "Three-dimensional  
Characterization of Inherent  
and Induced Sand Microstructure"  
Advisor: Dr. James D. Frost

*Hao Zhang*

Thesis: "Non-deterministic  
Linear Static Finite Element  
Analysis: An Interval Approach"  
Advisor: Dr. Rafi L. Muhanna

### **Doctor of Philosophy Electrical and Computer Engineering**

*Antonios Dimitrios Argyriou*

Thesis: "Transport Layer  
Optimizations for Heterogeneous  
Wireless Multimedia Networks"  
Advisor: Dr. Vijay K. Madiseti

*Israfil Bahceci*

Thesis: "Multiple-input, Multiple-  
output Wireless Systems:  
Coding, Distributed Detection,  
and Antenna Selection"  
Advisor: Dr. Yucel Altunbasak

*Tianbing Chen*

Thesis: "Operation of SiGe  
BiCMOS Technology under  
Extreme Environments"  
Advisor: Dr. John D. Cressler

*Chang-Hyuk Cho*

Thesis: "A Power-optimized,  
Pipelined, Analog-to-Digital  
Converter Design in Deep  
Sub-micron CMOS Technology"  
Advisor: Dr. Phillip E. Allen

*Kerkil Choi*

Thesis: "Minimum I-Divergence  
Methods for Inverse Problems"  
Advisor: Dr. Aaron D. Lanterman

*Vinita Vasant Deodhar*

Thesis: "Throughput-centric,  
Wave-pipelined Interconnect  
Circuits for Gigascale Integration"  
Advisor: Dr. Jeffrey A. Davis

*Graham Roland Drozdeski*

Thesis: "A Fault-tolerant  
Control Architecture for  
Unmanned Aerial Vehicles"  
Advisor: Dr. George Vachtsevanos

*Lisa M. Ehrman*

Thesis: "An Algorithm for  
Automatic Target Recognition  
Using Passive Radar and an EKF  
for Estimating Aircraft Orientation"  
Advisor: Dr. Aaron D. Lanterman



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*Ethan David Farquhar*

Thesis: "Summary and Impact of a Large-scale, Field-programmable Analog Neuron Array (FPNA)"  
Advisor: Dr. Paul E. Hasler

*Michael Dennis Farrell Jr.*

Thesis: "Analysis of Modeling, Training, and Dimension Reduction Approaches for Target Detection in Hyperspectral Imagery"  
Advisor: Dr. Russell M. Mersereau

*Olivier Laurent Charles  
Guerreau-Lambert*

Thesis: "Multidimensional Quantum Key Distribution with Single-side Pulse and Single-side Band Modulation Multiplexing"  
Advisor: Dr. Steven W. McLaughlin

*Young Sik Hur*

Thesis: "Equalization and Near-end Crosstalk Noise Cancellation for 20-Gbit/sec 4-PAM Backplane Serial I/O Interconnections"  
Advisor: Dr. Joy Laskar

*Taewon Hwang*

Thesis: "Iterative Techniques Based on Energy-spreading Transform for Wireless Communications"  
Advisor: Dr. Ye Li

*Cheng Jia*

Thesis: "A Delay-locked Loop for Multiple Clock Delays/ Phases Generation"  
Advisor: Dr. Linda Milor

*Kihong Kim*

Thesis: "Interference Mitigation in Wireless Communications"  
Advisor: Dr. Gordon L. Stuber

*Young-Jun Lee*

Thesis: "Routing and Efficient Evaluation Techniques for Multi-hop Mobile Wireless Networks"  
Advisor: Dr. George F. Riley

*Jeffrey Jason Lillie*

Thesis: "Highly Sensitive, Integrable, Multimode, Interferometric, Evanescent-wave Chem/Bio Sensor"  
Advisor: Dr. Stephen E. Ralph

*Shantidev Mohanty*

Thesis: "Architecture and Cross-layer Mobility Management Protocols for Next-generation Wireless Systems"  
Advisor: Dr. Ian F. Akyildiz

*Abubakr Muhammad*

Thesis: "Graphs, Simplicial Complexes, and Beyond: Topological Tools for Multi-agent Coordination"  
Advisor: Dr. Magnus Egerstedt

*Bhuvan Murthy Mutnury*

Thesis: "Macro-modeling of Nonlinear Driver/ Receiver Circuits"  
Advisor: Dr. Madhavan Swaminathan

*Yunseo Park*

Thesis: "Direct Conversion RF Front-end Implementation for Ultra-wideband(UWB) and GSM/WCDMA Dual-band Applications in Silicon-based Technologies"  
Advisor: Dr. Joy Laskar

*Eric Pichon*

Thesis: "Novel Methods for Multidimensional Image Segmentation"  
Advisor: Dr. Allen R. Tannenbaum

*Hossein Pishro-Nik*

Thesis: "Applications of Random Graphs to Design and Analysis of LDPC Codes and Sensor Networks"  
Advisor: Dr. Aldo A. Ferri

*Jerapong Rojanarowan*

Thesis: "MPLS-based, Best-effort Traffic Engineering"  
Advisor: Dr. Henry W. L. Owen

*Ronald Setia*

Thesis: "Modeling and Diagnosis of Excimer Laser Ablation"  
Advisor: Dr. Gary S. May

*Deric Wayne Waters*

Thesis: "Signal Detection for Strategies and Algorithms for Multiple-input, Multiple-output Channels"  
Advisor: Dr. John R. Barry

---

*Michael T. Weber*

Thesis: "Analysis of Zincblende-Phase GaN, Cubic-Phase SiC, and GaAs MESFETs, including a Full-band Monte Carlo Simulator"  
Advisor: Dr. William R. Callen

**Doctor of Philosophy  
Mechanical Engineering**

*Hae-Jin Choi*

Thesis: "A Robust Design Method under Model and Propagated Uncertainty"  
Advisor: Dr. David L. McDowell

*Marco Gero Fernandez*

Thesis: "A Framework for Agile Collaboration in Engineering"  
Advisor: "Dr. David W. Rosen

*Dalong Gao*

Thesis: "Control Limitation Analysis for Dissipative Passive Haptic Interfaces"  
Advisor: Dr. Wayne J. Book

*Shijiang He*

Thesis: "Near-infrared Photoelasticity of Polycrystalline Silicon and its Relation to In-plane Residual Stresses"  
Advisor: Dr. Steven Danyluk

*Kristian Wolfgang Krueger*

Thesis: "Bore Waviness Measurement Using an In-process Gage"  
Advisor: Dr. Thomas R. Kurfess

*Chao-Chieh Lan*

Thesis: "Computational Models for Design and Analysis of Compliant Mechanisms"  
Advisor: Dr. Kok-Meng Lee

*Shuo Li*

Thesis: "A Numerical Study of Micro-synthetic Jet and Its Applications in Thermal Management"  
Advisor: "Dr. Marc K. Smith

*Kai Liu*

Thesis: "Process Modeling of Micro-cutting Including Strain Gradient Effects"  
Advisor: Dr. Shreyes N. Melkote

*Jitesh H. Panchal*

Thesis: "Toward Integrated Design of Products and Design Processes"  
Advisor: Dr. Farrokh Mistree

*Blaise Damian Porter*

Thesis: "Development and Application of a 3-D Perfusion Bioreactor Cell Culture System for Bone Tissue Engineering"  
Advisor: Dr. Andres J. Garcia

*Frank Pyrtle III*

Thesis: "Vibration-induced Droplet Generation from a Liquid Layer for Evaporative Cooling in a Heat Transfer Cell"  
Advisor: Dr. William Z. Black

*Donald William Rhymmer*

Thesis: "Stress Intensity Solutions of Thermally Induced Cracks in a Combustor Linear Hot Spot Using Finite Element Analysis"  
Advisor: Dr. William S. Johnson

*Dawei Shen*

Thesis: "Deterministic Modeling of Rotary Lip Seal with Microasperities on the Shaft Surface"  
Advisor: Dr. Richard F. Salant

*Yoonghyun Shin*

Thesis: "Neural Network-based Adaptive Control for Nonlinear Dynamic Regimes"  
Advisor: Dr. Nader Sadegh

*Michael David Swinson*

Thesis: "Statistical Modeling of High-dimensional Nonlinear Systems: A Projection Pursuit Solution"  
Advisor: Dr. Nader Sadegh

*Vikas Tomar*

Thesis: "Atomistic Modeling of the AL and FE<sub>2</sub>O<sub>3</sub> Material System Using Classical Molecular Dynamics"  
Advisor: Dr. Min Zhou

*Hongqing Vincent Wang*

Thesis: "A Unit Cell Approach for Lightweight Structure and Compliant Mechanism"  
Advisor: Dr. David W. Rosen



# Master's Degree Candidates

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## Master of Science

*Ramiz Hamdan Alaileh*  
Electrical and Computer Engineering

*Vikram R. Anreddy*  
Electrical and Computer Engineering

*Krit Athikulwongse*  
Electrical and Computer Engineering

*Majid Badieirostami*  
Electrical and Computer Engineering

*Vijay Badrinarayanan*  
Electrical and Computer Engineering

*Soo Hyun Bae*  
Electrical and Computer Engineering

*Armen V. Baghdasaryan*  
Aerospace Engineering

*Andrew Thomas Bellocchio*  
Aerospace Engineering

*Brecca Lorene Berman*  
Public Policy

*Ryan Brucks Brown*  
Environmental Engineering

*Dean Alan Bucher*  
Aerospace Engineering

*Jamel Hassan Cato*  
Economics

*Rangarajan Thiruvenkata Chari*  
Computer Science

*Shin P. Chen*  
Electrical and Computer Engineering

*Jonathan Austin Colby*  
Aerospace Engineering

*Justin Mark Costley*  
Aerospace Engineering

*Yamille Ellend del Valle Kessra*  
Electrical and Computer Engineering

*Tram Dinh*  
Environmental Engineering

*Etienne J. Dufour*  
Mechanical Engineering

*Reid Pratt Eastburn*  
Economics

*Ghurumuruhan Ganesan*  
Electrical and Computer Engineering

*Ryan Alan Gesser*  
Environmental Engineering

*Sameer Jaffer Hameer*  
Aerospace Engineering

*Jean Carlos Hernandez-Mejia*  
Electrical and Computer Engineering

*Christopher Michael Herndon*  
Architecture

*Benjamin J. King*  
Materials Science and Engineering

*Jeffrey Wayne Kock*  
Civil Engineering

*Dana Lorraine Lowes*  
Earth and Atmospheric Sciences

*Casey Eugene Marks*  
Aerospace Engineering

*Divya Narayanan*  
Electrical and Computer Engineering

*Gregory Robert Nowicki*  
Aerospace Engineering

*Didem Okutman-Tas*  
Environmental Engineering

*Marcos Eduardo Orchard-Concha*  
Electrical and Computer Engineering

*Gerardo Orozco-Valdes*  
Electrical and Computer Engineering

*Deepali Palta*  
Textile and Fiber Engineering

*Mamta Jashvantlal Patel*  
Mechanical Engineering

*Rossana Claudia Peralta*  
Electrical and Computer Engineering

*Aaron Wade Pridgen*  
Aerospace Engineering

*Nimrod Rooz*  
Aerospace Engineering

*Mohammad Soltani*  
Electrical and Computer Engineering

*Tolga Tezcan*  
Mathematics

*Paulin Prashant Thakore*  
Economics

*Sarah L. Tressel*  
Mechanical Engineering

*Nurkan Turkdogru*  
Aerospace Engineering

*Inna Volyanska*  
Economics

*Katherine Signs Wade*  
Environmental Engineering

*Gewei Wang*  
Economics

*Karl Petter Wirfalt*  
Aerospace Engineering

*Li Yang*  
Electrical and Computer Engineering

*Yang Yu*  
Electrical and Computer Engineering

### **Master of Science in Paper Science and Engineering**

*Cosmas Bayuadri-Subianto*  
*Gelareh Shakourian*  
*James Andrews Stockard*

### **Master of Science in Quantitative and Computational Finance**

*Aphiwat Charnprasitphon*  
*Yu-Hsuan Cheng*  
*Meenakshi Sundaram Chettiappan*  
*Satyapanindar Chilukuri*  
*Gunhyo Cho*  
*Deya Hussein Dabbagh*  
*Keith D. Ellison*  
*Munish Gupta*  
*Bill Graham Huff III*  
*Eyal Kaufman*  
*Timothy K. Layman Jr.*

*Min Gyu Lee*  
*Yaqiu Li*  
*Zhijie Lu*  
*Se-Kyoung Oh*  
*Todd Warren Page*  
*Reshma Vikram Parekh*  
*Gregory William Pernoud*  
*Sai Kumar V. S. Popuri*  
*Arnab Sarkar*  
*Mark J. Sayers*  
*Jacqueline Sandra Senosain*  
*Preethi Srinivasan*  
*Lei Tian*  
*Gregory William Vemis*

### **Master of Science in Human-Computer Interaction**

*Karthik M. Narayanaswami*  
*Jamie Rose Weitz*  
*Jennifer Leigh Wiley*

### **Master of Science in Bioengineering**

*Amy Rebecca Guinn*  
*Ramaldo S. Martin*  
*Timothy Matthew Patz*  
*Simeon Kahlil Sessley*  
*Christopher Matthew Sinotte*  
*Dennis Dam Soerensen*  
*Daria Theodora*  
*Ming Zhong*

### **Master of Science in Polymers**

*Chandana Kolluru*

### **Master of Science in Statistics**

*Tuba Aktaran-Kalayci*  
*Yaqiu Li*  
*Akira Morita*  
*Pylyp Papush*  
*Cuizhen Shen*

### **Master of Science in Information Security**

*Salony Agrawal*  
*Chiradeep Bharat Chhaya*  
*Shiroy Choksey*  
*Jeremy Dominic Viegas*



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**Master of Science  
in Computer Science**

*Preetesh Suhas Banthia  
Charles David Cash  
Ryan Scott Collins  
Nicholas A. Diakopoulos  
Dylan Mark Dsilva  
Benjamin David Garrison  
Jonathan Gdalevich  
John Alan Gibby  
Muhammad Raafay Hamid  
Daniel Sean Hanley  
Christopher James Henke  
Jeffrey Joseph Hoerl Jr.  
Charles Vincent Holmes  
Yan Huang  
Raphael Kobi  
Ichak Koutchoukali  
Sanjay Kumar  
Ignacio Llamas  
David Charles Minnen  
Keith J. O'Hara  
Sungkeun Park  
Rocky R. Patel  
Daniel Popescu  
Alexander Patrick Powell  
Giuseppe Rota  
Joseph Francis Scoccimaro  
Shetu Navin Shah  
Joy Maria Shieh  
Aarjav Jyotindra Neeta Trivedi  
Manuel Varas-Salete  
Andreas Von Hessling  
LiLi Apilia Wangsa  
Michael Frederick White  
Oriana Jeannette Williams  
Adam Callaway Wilson  
Brandon Heath Yarbrough  
Zhen Hao Zhou*

**Master of Science  
in International Affairs**

*Hope Marie Bresch  
Ellen Jayne Cimino  
Amy Melissa Bass Henry  
Patricia Marie Coughlin Higgins  
Wayne Patrick Liebold  
Kelly Campbell McQueen  
Erin Daye Moore  
Lauren Staley Pinson  
Natalie Curro Reichert  
John Wesley Walker  
Brandon Thomas Watkins*

**Master of Science  
in Public Policy**

*Lemuella Chukunwellun Spencer Logan*

**Master of Industrial Design**

*David Frederic Lynn*

**Master of Science  
in Building Construction and  
Facility Management**

*Judah Cameron Bradley  
Nick Chatwatanasiri  
Spencer Eric Dekhayser  
Jason George Grimes  
Peter James Hardy  
Abigail Dorya Hyatt  
Halim Kang  
Daniel Chul Kim  
Barbara R. Miller  
Siriwan Rujibhong  
Stephen Robert Swan  
Se Mi Yoon*

**Master of Architecture**

*Wilma Kathleen Daugharty  
Irene Dons Eben  
Maita Mae Rivas*

**Master of City and Regional Planning**

*William Harold Herbig IV  
Jeffrey Alan Lowe  
Joyce Elizabeth Tsepas*

**Master of Science in Management  
of Technology**

*Clinton R. Ages  
Gregory Alexander  
Valerie Jeanne-Marie Anderson  
Samuel Allen Bailey Jr.  
Aaron Justin Bartels  
Darrell Timothy Black  
Anthony M. Bradford  
David Thomas Bullock III  
Daniel William Carter  
James Conerton  
Nate Couturier  
Josh Matthew Daymont  
Andrew Ronald Donaldson*

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Michael Edward Douglas  
Mark Edward Farmer  
Jason Howard  
Dennis Fletcher Jones Jr.  
David L. Kunkle  
Jeffrey S. Lancaster  
Seong Eun Kim Lee  
Daniel Bruce Leonard  
Les Lewis

Ruben D. Marentes  
Amy Elizabeth Means  
Conrad Cledwyn Meertins  
Rodney Devon Miller  
Manoj Muthukumar  
Tracy Earl Oliver  
Robert M. Partee  
Asim S. Qureshi  
Margaret Mary Richelt  
Michael Scott Rouse  
Sean David Ryan  
Brenda E. A. Thompson  
Alan Tingle  
Christopher Lee Underwood  
Andrew Moore Watson  
Johnnie Young

#### **Master of Business Administration**

Jonathan B. Barnett  
Ricardo John Campbell  
Vanessa Correal-Breedlove  
Balakrishnan Ananthan Ganesh  
Steven Alexander Lee  
Nan Li  
Charles Edward West

#### **Master of Science in Earth and Atmospheric Sciences**

Sawyer Ross Gosnell  
Gabriel John Hebert  
Andrea Elizabeth Thompson  
Bo Yan

#### **Master of Science in Psychology**

Kenneth W. Hailston  
Matthew K. Minton  
Stacey Draisin Wolman  
Jesse S. Zolna

#### **Master of Science in Applied Biology**

Melissa Kathryn Hicks  
Tuba Ozbay  
Aarti N. Urs  
Wenjing Zheng

#### **Master of Science in Bioinformatics**

Oluwabukunmi Ayanbule  
Abhishek Dabral  
Ryoko Ishihara  
Lee Scott Katz  
Kris Lee Khamvongsa  
Srividya Mohan  
Susheel R. Sukhtankar  
Ryan Darlington Wagner

#### **Master of Science in Mathematics**

Thomas David Backes  
Mark Bilinski  
Kai Huang  
Qing Hui  
Byungmoon Kim  
William Bradley Lathem  
Siddhartha Maddi  
Guillermo Andres Narsilio  
Radleigh G. Santos  
Dominik Schmid  
Ganesh Sundaramoorthi

#### **Master of Science in Physics**

Joshua David Bodyfelt  
Matthew Eugene Cammack  
Andrew Mingning Cheung  
Layne Russell Churchill  
Michael John Gibbons  
Soo Y. Kim  
Ying Li  
Anthony Liang  
Wenjie Mai  
Qishu Qin  
Mohammad Soltani  
Adam Vlahakes Steele  
Minde Sun



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**Master of Science in Chemistry**

*Krystyn Alter Hall  
Burcu Ishakoglu  
Daniel Joseph Menasha  
Cathy Ann Muste  
Amir Hossein Saheb  
Alexander Wilhem Schill  
Anthony Philip Tauer  
Kanta Yamamoto*

**Master of Science in  
Biomedical Engineering**

*Sarah E. Coleman*

**Master of Science in Medical Physics**

*Julie Lynn Boddington  
Jeremy Kane Dobbins  
Christie Shackelford Jarrio  
Lindsay Wood Launius  
Christine Chun Ting Lee*

**Master of Science in Health Physics**

*R. Jason Faddis  
Carmen Maureen Greene*

**Master of Science in  
Nuclear Engineering**

*Julien Renaud Ance  
Zachary Ward Friis  
Jesson D. Hutchinson  
Ryan A. Lori*

**Master of Science in Engineering  
Science and Mechanics**

*Jan Herrmann  
Thorsten Oliver Mueller*

**Master of Science in  
Operations Research**

*Murat Aka  
Vijay Bharadwaj  
Tze-Huei Chan  
Serhan Duran  
Chunhua Gao  
Santiago Garcia-Alvarez  
Reidar Hagtvedt  
Amandeep Parmar*

**Master of Science in  
Industrial Engineering**

*Jorge L. Arrastia  
Tina Wei-Ling Denq  
Andres F. Diaz  
Chia-Chi Huang  
Deepak Chandrahas Jahagirdar  
Nirmeet Haresh Kacheria  
Rungsinee Kasetpibal  
Adeel Syed Khalid  
Kiah Jui Sherman Khoo  
Chunhui Liu  
Padmini Madarapakam Pagadala  
Evren Ozkaya  
Sidharth Sahoo  
Tejpal Singh  
Ryan Matthew Sprengel  
Ching Siow Tan  
Ee Chong Tan  
Kah Keat Tan  
Peen Peen Kelly Tan  
Sean Kok Han Tan  
Lei Tian  
Emrah Uyar  
Renwen Rong Wen  
Xiaojian James Xie  
Chor Hian Yap*

**Master of Science in  
Aerospace Engineering**

*Jennifer Nadine Abras  
Graham Michael Blaylock  
Hans Claus Christmann  
Jason Douglas Geder  
Goktan Guzel  
Vivek Kaul  
Leslie Elise Lamberson  
Emmanuel Jonas Levy  
Nicholas Dwayne Liggett  
Chiluwata Elijah Lungu  
Randy Lane Olsen  
Valerio Parisi  
Bryan Wesley Romig*

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Dominic M. Scola  
Akbar Shareef  
Michael Sielemann  
Ryan R. Sookhai  
Jaesuk Yang

**Master of Science in Materials  
Science and Engineering**

Bruce Douglas Gray  
James Joel Harris  
Timothy William Schneider  
Steven Anthony Siebert  
Abhishek Sai Sivapurapu  
Michael Raymond Weatherspoon

**Master of Science in  
Chemical Engineering**

Akua Asabea Asa-Awuku  
Ayanna Malene Bernard  
Nathan Lee Bower  
Karla Ann Dennis  
Robert Fort Eads  
Joshua David Grilly  
Robert McGuire Lowe Jr.  
Elizabeth Lynn Newton  
Ifedinma Uduekwesi Ofoma  
Gregory D. Smith  
Beng Joo Reginald Thio  
Zhaohui Tong

**Master of Science in  
Environmental Engineering**

John Eric Eaglin  
Richard Roy Elliott  
Grant Thomas Michalski  
Piti Piyachaturawat  
Adile Evren Tugtas

**Master of Science in  
Civil Engineering**

Justin Andrew Bansen  
Voraphan Chonnapasatid  
Michelle Abina Daniel-Conliffe  
Cristian R. Escauriaza  
Biniam Ogubamichael Ghebream  
Jeffrey Ray Giffen  
Thomas Goetzinger  
Nicholas Jacob Haddad  
Seung ho Hong  
Jong Wan Hu  
Martin Kistenmacher

Kanoknart Leelardcharoen  
Ronald J. Miller  
Casey Lester Porter  
Rahul Rajendra Ranade  
Jorge N. Rodriguez  
Brian Keith Sapp  
Bo Tate  
Jia-Jing Tsai  
Seung Kook Wu

**Master of Science in Electrical  
and Computer Engineering**

Esther C. Alexander  
Erick Andrew  
David Allen Bauer  
Wade Allen Berzett  
Herbert Brown Jr.  
Jason P. Clark  
Romain Emmanuel Cledat  
Duston Marc Cline  
William Austin Cline  
Winston Roman Czakon  
Rodman Carter Drews  
David Andrew Ferguson  
Charles William Frey  
Xin Gao  
Jordan David Gray  
Stephen Isaiah Halbgewachs  
Richard S. Hatter  
Aaron William Jackson  
Sidhant Jena  
Jinesh Vinod Karia  
David Alan Keeling  
George Kurian  
Steven Paul Linsel  
Christopher Patrick Lee  
Ho-Seon Lee  
Gunvir Singh Mamik  
Sheri Ann Molineaux  
Elizabeth Margaret Moyer  
Danny Nguyen  
Symeon Nikolaou  
Sumit Pahwa  
Muhua D. Pang  
Joshua Myer Perkel  
Mustansir Moiz Pratapgarhwala  
David Richard Reid  
Charles M. Reinke  
Ravikrishna V. Ruddaraju  
Joseph Eiven Sanfilippo  
Aaron Edward Showers  
Justin Lee Stay  
Darren Eugene Stone  
Lum Nwi Tabah  
Hitesh Jagdish Upadhyay  
Mario Eduardo Vitte  
Kevin Wayne Walker



---

Shawn Michael Worsencroft  
Tai-Sim Yeoh  
Deryck Su Chu Yeung

**Master of Science in  
Mechanical Engineering**

Jonathan B. Barnett  
Antoine Bernard  
Thu-Thuy Stephanie Bui  
Manuel Cali  
David M. Chapin  
John Thomas Connelly  
David Lee Damm  
Jeffrey Steven Davies  
Paul de Mathan  
Cornelius Uchechi Ejimofor  
Adam Ross Fleming  
James Christopher Ford  
John Lyle Fouts  
Jason Michael Fulmer  
James Davis Garth  
Ronan Gelu  
Manuel Gila  
Thomas Edmond Glasgow  
Andrea Greene-Shoemore  
Abraham Marc Greenstein  
Charles Clarence Hagadorn III  
Matthew Wesley Hammond  
Scott Lucas Herdic  
Michael ChinJen Huang  
Supat Ieamsupapong  
Benjamin Lee Johnson  
Karan Kacker  
Philippe Laurent  
Kang Joon Lee  
Maxime Lelong  
Jean-Baptiste Leydet  
Tara Reeves Lindsay  
Nathan Daniel Lunetta  
Tiffanie Nicole Malone  
Pete Manglogiannis  
Olivier Francois Masson  
Edward John Mayle  
Francesco Mazzini  
Darren L. McDowell  
Matthias Jan Wolfgang Messer  
Jian Mi  
Peter Hahn Murray  
Richard Louis Neal  
Andres Osorno  
Daniel Osorno  
Vlad P. Patrangenaru  
Shannon Robert Pine  
Erik Matthew Quijano  
Ghislain Jean Retaureau  
Nathan Wayne Roland  
Ivan Roman-Basora

Steven Craig Russell  
Ilissa Brooke Schild  
Erich Hans Schlender  
Andrew Robert Schnell  
John Thomas Schofield  
Stephanie Scotto Di Cesare  
Maximillan Ben Shaffer  
Dmitry Iosifouich Shyubsky  
Tyler Lincoln Smith  
Arnaud Henri Thabot  
Jerald Darnell Thompson Jr.  
Philippe Tottoli  
Siarhi G. Tsiareshka  
Sten-Ove Albee Tullberg  
Maxime Vallee  
Chuang-Sheng Yang  
Sandra Zimmer

# Bachelor's Degree Candidates

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## College of Computing

### Bachelor of Science in Computer Science

#### Highest Honor

Garrett F. Boyer  
Andrew Hyungwoo Choi  
Pranay Harsh  
Roy Peter Johnston Jr.  
Henry William Lander Jr.  
Christopher Scott Lewis  
Cambiz Mura  
Michael Natkovich  
Nathaniel Robert Rivard  
Yoann Jonathan Roman  
Luke Aron Snyder  
Jason A. Whitehurst

#### High Honor

Maiko Chujo  
Taiji Kamiya  
Todd Matthew Lewis  
Ellen Joy Matthews  
Daniel Christopher Myhrberg  
Angela Maria Navarro  
Justin Vrolyk Parker  
Jaime Michael Yap  
Aaron Daniel Zimmermann

#### Honor

Jason Robert Ardell  
Imran Chowdhury  
Victor Horia Galis  
Christopher William Hunt  
Michelle Brianna Kitaoka  
Douglas Lloyd Shaffren  
Andrew Pace Smathers  
Elizabeth Solomon  
Austin McBride Syfert

Christian Louis Adam  
Sergei A. Agoureev  
Keith John Alexander  
Charles Seymour Anderson  
Mohammad Jamal Ashraf  
Matthew Robert Balaun  
Babak S. Banijamali  
Christopher Minnix Beauregard  
Scott Thomas Betzel  
Hsin-yi Chou  
Sungnim Chung  
Jeffrey Lamar Crenshaw  
Jesse David Dahlstrom  
Samuel Reese Gawthrop  
Aron T. Giles  
Rory Cade Gordon  
Patricia P. Gutierrez

Calvin Lanier Hall  
Andrew Tokuichi Heckman  
Thomas Samuel Hunter  
Timothy R. Jackson  
Robert Ernest Jameson  
Kevin L. Kane  
Christopher David Kelly  
Christopher D. Landry  
Chan Joung Lee  
Charles Ryan LeRoy  
Matthew Lee Loupas  
Suman Mallick  
John Pearson McConnell  
Lena Mehrabian  
Eric Daniel Melcher  
Axel Molina  
Andrew Thomas Nagel  
Nicholas Parham Panahi  
Thomas Duckett Perrie Jr.  
Frank Samuel Rietta  
Robert John Rodgers Jr.  
Ryan Scott Seekely  
Fisnik Shpuza  
Corey Alan Slate  
Gregory Hunter Smith  
Robert Timothy Stewart  
Xiao Ping Taing  
Carlo Florentino Tambuatco  
Robert W. Thomas  
Justin Aaron Travis  
Matthew Eric Traxinger  
Joseph Saxon Unrue  
Shaun Michael Whitt  
Omari Talib Worthy

### Bachelor of Science in Computer Science Cooperative Plan

#### Highest Honor

Zachary Mitchell Allen  
John Phillip Etherton  
Jorge Eduardo Lage-Saguier  
Michel Mansour  
Tejesh Shantubhai Patel  
Arun Vinod Sharma

#### High Honor

Asif Habibullah Ladak  
Tan Minh Tran

#### Honor

Bryan Joseph Horne  
  
Justin David Barber  
Jesslyn Faith Beattie  
Royce Albert Cho  
Matthew Harrison Collins



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Brian Toupal Devlin-Meagher  
Lauren F. Griffin  
Chad Martin Hansen  
Michael Benjamin Helman-Darley  
Mahmudul Hasan Jilani  
Lisa Nicole Jordan  
Nathaniel Inchull Lee  
William Edwin Oakley Jr.  
Michael Lee Quiggle  
Dustin Max Roberts  
Shakti Saran  
Matthew Eugene Winters  
Sam Chang Yi

---

*Allen College of  
Liberal Arts*

**Bachelor of Science  
in Public Policy**

High Honor  
Rebecca Kathleen Arce

Jolea Tanese Bryant  
Ila Ansley Cleveland  
Sarah Elizabeth Oliver

**Bachelor of Science in History,  
Technology, and Society**

Honor  
Bonnie Sue Bergstresser

Timothy M. King  
Lauren Ivy Moore  
Santiago Jose Santamarina

**Bachelor of Science in Science,  
Technology, and Culture**

Highest Honor  
Monica Marie Acree  
Shelly Lynn Krueger

High Honor  
Martin Christopher Walsh

Honor  
Emily Frances Beck  
Dlorah Chanin Jenkins  
Shaun Michael Mendenhall

William Michael Armstrong  
Georgianna Marie Franklin

Krista Lene Greiner  
Demetra Vernee Harvey  
Kera Joanne Jones  
Wes McRae  
James Edward Pittman  
Ian Hayden Shantz

**Bachelor of Science in Science,  
Technology, and Culture  
Cooperative Plan**

Honor  
Irving Yates Wang

**Bachelor of Science in International  
Affairs and Modern Languages**

Highest Honor  
Katherine Anne Foley  
David Broxton Mardis  
Ian Anderson Williams

High Honor  
Ashley Lauren Case

Honor  
Jennifer Michelle Browning

Michelle Claire Cames  
Keeley Ingrid Taylor  
Aimee Uwimpuhwe Uwamahoro

**Bachelor of Science in  
International Affairs**

Highest Honor  
Amy Louise Schmisser

High Honor  
Albert Peter Reilingh

Honor  
Harrison Smith Duckett  
Victor Horia Galis

Hassan Jamil Chaudhri  
Shabih Zehra Hasnain  
Dana Kathryn Long  
Maya Emerald Monroe  
Bijal Nagrashna  
Thao Mai Thi Nguyen  
David Petersen  
David James Pusey  
Katherine Ann Roberts  
Emily Margaret LaCroix Taylor

---

**Bachelor of Science in  
International Affairs**  
Cooperative Plan

Honor

*Nathaniel Padriac O'Rourke*

*Andrew Steven Miles*

**Bachelor of Science  
in Global Economics  
and Modern Languages**

Highest Honor

*Kerreci-Ann Alana Foster*

*Dore Marcelle Madere*

**Bachelor of Science  
in Economics**

Highest Honor

*Donald Oneal Beamer Jr.*

Honor

*Mollie Marie Taylor*

*Adrien Thomas Pesa*

*Jose Antonio Silva*

*James B. Smith*

*Matthew T. Taylor*

High Honor

*Joshua Cleylan Ayers*

Honor

*Michael Joe Gantt*

*Samuel Joseph Holt*

*Christopher Michael Janos*

*Christopher Michael LeCroy*

*Alex Michael Alderman*

*Nathaniel Adam Bear*

*Christopher Michael Bohn*

*Steven Thomas Bowden Jr.*

*Patrick Bradford*

*Thomas Patrick Callahan*

*Elizabeth Lane Driscoll*

*Johnathan Dewayne Jackson*

*Eric W. Jan*

*John Su Il Kwon*

*Justin Kent Maryak*

*Mark Edward Muecke Jr.*

*Thomas Jeffrey Rhodes*

*Derek Michael Schubert*

*Courtney Michelle Weaver*

*Deanna Lee West*

**Bachelor of Science in  
Building Construction**  
Cooperative Plan

Highest Honor

*Patrick Timothy Staley*

---

**Bachelor of Science  
in Industrial Design**

Highest Honor

*Ryan James McFerrin*

High Honor

*Lynnly Assavavallop*

Honor

*James Andrew Lytle*

*Tuee C. Chanthavong*

*Bokum Lee*

*Kelli Christine Lewis*

*Charles Park*

*Benjamin Joiner Starr*

*David Alexander Van Arsdale*

*Brent Andrew Wingfield*

---

*College of Architecture*

**Bachelor of Science**

High Honor

*Steven Waters Spandle*

*Michael David Apple*

*Christopher George Cox*

*Samuel Charles Germany*

*Glenn Gerald Grimwood IV*

*Laila Elizabeth Piskov*

*Stephen Jared Snider*

*Ryan Nathaniel Swingruber*

*Brian Michael Tomlin*

**Bachelor of Science in  
Building Construction**

Highest Honor

*Mark Long-Hoang Dinh*

*Kevin S. Middlebrooks*



---

## *College of Management*

### **Bachelor of Science in Management**

#### Highest Honor

*Esther Ann Millard*

*You-il Park*

*Christopher Charles Ray*

*Lauren Amanda Sauer*

#### High Honor

*Aaron James Baker*

*Margaret Mary Godbee*

*Ashley Marie Wells*

#### Honor

*Elizabeth Lindsay Chason*

*Joseph Murry Clark III*

*Rita Bahadurali Habibbhai*

*Wesley Hue Hall*

*John Perry Harper*

*Nisha Rani Jain*

*Thomas Michael Jaskel*

*Lindsey Margaret Martin*

*Sean Joseph McNeal*

*Julie Diane Munoz*

*Lindsey Martin Muse*

*Gregory Joseph Olson*

*Justin James Pepple*

*Jeremy Michael Raines*

*Wesley Alan Ross Jr.*

*Scott Daniel Starowicz*

*Vijal Bhupendra Trivedi*

*Dong Philip Yan*

*Elizabeth Anne Abbott*

*Zamir Dov Asher*

*Marisa M. Aston*

*Kyle Evan Bakker*

*Russell John Ballard*

*John Luke Barker*

*Elizabeth Leona Bartle*

*Kayla Lynn Berry*

*Salih Besirevic*

*Damarius Ontonio Bilbo*

*David Chamberlain Blanton*

*Angel Rene Broach*

*Cassie Lynn Brooks*

*Jennifer Nicole Bunn*

*Arthur William Christianson IV*

*Crystal Rena Chubbs*

*Cuyler Elizabeth Clegg*

*Christopher John Cornish*

*Brian David Cox*

*Eric J. Dalley*

*Dennis Lamont Davis Jr.*

*John Alan Dean*

*Nathaniel Preston Dischinger*  
*Christopher Andrew dos Santos*

*Sarah Kirsten Duffy*

*Andrea L. Dunlop*

*Kristopher Reid Erickson*

*Andrew Terry Evans*

*Stephanie Nanette Feaster*

*Nicholas A. Ferguson*

*Brian Lee Ford*

*Leesha Genevieve Francis*

*Sara Elisabeth Gilli*

*Brittany Danielle Gordon*

*Lindsay Ann Goree*

*Thomas Russell Goree Jr.*

*Eric Charles Henderson*

*Sarah Joanne Hinkle*

*Jeffrey Ryan Holbrook*

*Cameron Blaine Hostetter*

*Reuben James Houston*

*Kelly Suzanne Jackson*

*Adam Ryan Jessen*

*Thomas Alexander Johnson*

*Stuart Lee Johnston Jr.*

*Thomas A. Jones III*

*Julie Jyang*

*Michael Kenichi Kanno*

*Bilal Ali Khan*

*Jeffrey Roy Kindel*

*Dawan Frank Landry*

*Sekou Bandele Langevine*

*Robert Homer Lanier*

*Emmett Martin Lawson III*

*Wendy Li*

*Emily Kristen Lukach*

*Ryan Elizabeth Lynch*

*Elizabeth Rebecca Manley*

*Philip William Manthe*

*Katherine Elizabeth Maxwell*

*Cheston Michael McAllister*

*Paul D. McCarty*

*Ashley Kristin McNeill*

*Victor William Menocal*

*Catherine Michelle Nichols*

*Tobe Northcutt III*

*Sean Richard O'Donnell*

*Kerianne Joy Osonitsch*

*Matthew Walker Oxley IV*

*Matthew Carleton Palmer*

*Rhett Manton Parrott*

*Meredith Leigh Pharr*

*Kesler Alexander Pollard*

*Daria Potapova*

*Christopher Barton Prossick*

*Kyle Alexander Rabbitt*

*Shaun M. Randall*

*Stephen Philip Ready*

*Christopher Barnes Reinig*

*Khurram Rizvi*

*Benjamin James Roberts*

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*Katherine Ann Roberts*  
*Carlos Antonio Robledo-Suarez*  
*Dana Marie Rogers*  
*Catherine Amanda Ross*  
*Eric Paul Rowe*  
*Andria Carmen Sanchez*  
*Robert Arthur Sellers Jr.*  
*Brittany Elizabeth Shearer*  
*Jodi Danielle Siebold*  
*Scott Kyle Simpson*  
*Kent Randle Smith*  
*William Paul Song*  
*Matthew T. Taylor*  
*Charles Hayes Todd*  
*Hanson Rodgers Turner*  
*Kyle Heath Turner*  
*Katherine Leigh Vandehey*  
*David Brent Williams*  
*Brett Randall Wilson*  
*Joshua David Zant*  
*Meredith Anne Zaring*

**Bachelor of Science  
in Management**  
Cooperative Plan

Highest Honor  
*Kathryn Alice George*  
*Kelli C. Webb*

High Honor  
*Mary Elizabeth Beavers*  
*Michael David Ramsey*

Honor  
*Jared Eschol Dent*

---

*College of Sciences*

**Bachelor of Science in  
Discrete Mathematics**

Highest Honor  
*Luke Aron Snyder*

*Kelly Lyons*  
*Matthew Alexander Powell*

**Bachelor of Science in Earth and  
Atmospheric Sciences**

*Melanie Janay Snow*

**Bachelor of Science  
in Applied Biology**

Highest Honor  
*Srishti Lipsa Bhagat*  
*Jennifer Lynn Grabowski*  
*Elizabeth Lauren Munter*  
*Hsu-ming Wen*

High Honor  
*Kerri Dawn Lafferty*

Honor  
*Nancy Lynn Beebe*  
*Grant Martin Williams*

*Nina Amir*  
*Uzma Afroz Ansari*  
*Jennie Elizabeth Burnham*  
*Emily Louise Malone*  
*Pedro Rabelo Olivetti*  
*Yutaka Onuki*  
*Melanie Ann Raimondo*  
*Mary Elizabeth Stansfield*  
*Megan Rebecca Stewart*  
*Kimberly Cotter Thomas*  
*Lindsey Lauren Threlkeld*

**Bachelor of Science  
in Applied Biology**  
Cooperative Plan

*Michael Brett Fisher*

**Bachelor of Science  
in Applied Psychology**

*David Thomas Blythe Jr.*  
*Lulua Mandviwala*  
*Leigh Patricia Nadel*  
*Martin Gaston Parets*

**Bachelor of Science in  
Applied Mathematics**

Highest Honor  
*Stephanie Chung*  
*Christopher Andrew Mothorpe*

*Kyle Jerome Geathers*  
*Bayazid H. Sarkar*  
*A. Grant Schissler*



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**Bachelor of Science  
in Physics**

Highest Honor  
*Nicholas Paul Robert Gritz*

Honor  
*Brendan William Crowell*

*Bradley Davis Akin  
Michael Andrew Bartolo  
Yuzuru Fujikubo  
Sarah Elizabeth Lane  
Carlo Florentino Tambuatco*

**Bachelor of Science  
in Chemistry**

Highest Honor  
*Horace H. Leung*

High Honor  
*Meagan Elizabeth Spencer*

Honor  
*Emily Frances Beck  
Li-Pan Daniel Yao*

*Thomas Ignatious Fitzpatrick II  
Melinda Dawn Rowland*

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*College of Engineering*

**Bachelor of Science  
in Biomedical Engineering**

Highest Honor  
*Christina Marie Allen  
Meghan Elizabeth Gilroy  
Michelle Andrea Lightfoot  
Chang Feng Quo  
Thomas Zdzislaw Teisseyre*

Honor  
*Kelly Lorraine Merritt  
Eric Charles Whittaker*

*Kristen Marie Baker  
John Robert Brumfield  
Jennifer Anne Haggenmaker  
Martha Ellis Meng  
Santosh Naik  
Maggie Elise Wolfson*

**Bachelor of Science  
in Biomedical Engineering  
Cooperative Plan**

High Honor  
*David Joseph Gresback*

*Kathryn Jean Boehle*

**Bachelor of Science in Materials  
Science and Engineering**

Highest Honor  
*Vardaan Chawla*

*Julie Diane Duryee  
Laura Schroeder*

**Bachelor of Science  
in Computer Engineering  
Regional Engineering Program**

*John Robert Harris  
Kyle Steven Maddux  
Jared Lee Trussell*

**Bachelor of Science  
in Computer Engineering**

Highest Honor  
*Kunle Oluwatayo Oguntebi Jr.  
Virosius Susanto Putra  
Christopher Andrew Scott*

High Honor  
*Arani Sen  
Charles Li Wang  
Muhammad Osman Yousuf*

Honor  
*Mohit Jain  
Lucas Rangit Magasweran  
Jaimin A. Shah*

*William K. Ampong  
Peter A. Babb II  
Martin Kent Bouts  
Apryl M. Broach  
Carter Randolph Harrison  
John Han Hwang  
Timothy Sungsoo Lee  
Johnny Lu  
Uchenna R. Obi  
Temidayo Solomon Oluwo  
John Ben Owens II  
Krunal Ashok Patel*

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*Vishal Ritesh Patel  
Aziza Rahman  
Jaclyn Nicole Schlieper  
Luke Kennerly Simpson  
Ashley Ann Swinson*

**Bachelor of Science  
in Computer Engineering  
Cooperative Plan**

**Highest Honor**  
*Ryan Matthew Coram  
Sundeep Roy*

**High Honor**  
*Roger L. Barker  
Michael JungWon Kang*

*William Thomas Anton II  
Charulaxmi Murlidhar Fadnavis  
William Charles Goorsky V  
Aditya Satya Sri Immaneni  
Alex Muresan  
Jonathan Reece Pegues*

**Bachelor of Science in  
Nuclear and Radiological  
Engineering**

**Highest Honor**  
*Ashby Harrison Bridges*

**High Honor**  
*Justin Michael Pounders*

**Honor**  
*Robert Steven Kelm*

*Christopher James Boyd  
Michael Warren Cymbor*

**Bachelor of Science  
in Industrial Engineering**

**Highest Honor**  
*Christopher James Basiliere  
Tian Pwu Chang  
Camila Maria De Matos  
Joseph Anthony Depa  
Elizabeth Larson Greenway  
Joshua Ross Hirschel  
Jacqueline Cristina Jones  
Kevin William Keene  
Sieen Lisan  
Michael David Morehead  
Rosa A. Obregon*

*Zeeshan Pandjou  
David Michael Rheault  
Chirag Kiran Sanghvi*

**High Honor**  
*Nakul Aggarwal  
M. Brian Broadhurst  
Emily Lynn Chancellor  
Stephanie Marie Hollister  
Jennie Christine Long  
Mark Andrew Powell  
Blake Tyler Schnorf  
Jason Alexander Silver  
John Thomas Taylor*

**Honor**  
*Kimberly Lin Buckner  
Daniel Norman Castresana  
Peng Chen  
Julie Renae Dahlby  
Jeremy Scott Gaddy  
Katherine Lee Kearns  
Arpan Majmundar  
Donald Matthew Moore  
Brian John Morgan  
Jennifer L. Tran  
Brian James White  
Kimberly Ellen Williamson  
Jamie Katherine York*

*Mohammad Jamal Ashraf  
Joseph Kurien Attokaren  
Matthew Taylor Bronikowski  
Joanna Megan Byrd  
Rachel Teresa Callaway  
Phillip Aaron Oscar Campbell  
Aaron Tzer Luen Chen  
Charles R. Chen  
Tanvir Abbass Chouhan  
Paul Gordon Clifton  
Christopher Weston Cushman  
Andryll Martineze Davis  
Sheena Danielle Davis  
Jonathan Alan Dorris  
Jametsha LaShawn Douglas  
Jerry Mark Edwards Jr.  
Thaddeus Phillip Evans Jr.  
Alfredo Jesus Fernandez  
David Wayne Gray  
Stephen Robert Grimm  
Israel Guilloty  
Powell Jonathan Hamner  
Jessica Nicole Higgins  
Micah David Hotchkiss  
Adam Dawson Hudson  
Gregory James Hunt  
Desiree S. Johnson  
Thomas Alexander Johnson  
Anna UnHee Kim*



John Andrew Kim  
Andrew Robin Kurian  
Tamara Jess Levin  
Charlie Lim  
Christopher John McGovern  
Michael Morad Meshkaty  
Aaron Carr Mitchell  
Mohamed Kaish Momin  
David Sherman Music Jr.  
Sami Nader  
Andy Anh Nguyen  
David Jermel Orise  
Michael Raymond Para  
Beatriz Margarita Perez  
Melody Xuan Phan  
Rachel Elizabeth Pillion  
Michelle Lynne Piver  
Christopher Barton Prossick  
Daniel Marion Provenzano  
Vladislav Rikhter  
Frederick William Schwartz IV  
Joseph Warren Smith  
Abiodun Tolu Sokan  
Sean M. Sternbach  
Peter Kenyon Stewart  
William P. Stoeffel  
Dara P. Thach  
Christian Chikezie Ubani  
James Kyle Vinci  
Sabrina M. Walczak  
Lyndsey Kay Wells  
Nicodemus Winata  
Charles Benson Wright  
Darragh Elizabeth Wright  
Erin Charmier Wright  
Dong Xia

**Bachelor of Science  
in Industrial Engineering  
Cooperative Plan**

Highest Honor  
Kristofer Matthew Hoydar  
Andrew Thomas Schlesing  
Esmeralda Shkoza

High Honor  
Michael Patrick Lehman  
Premkishan R. Shetty

Honor  
Corey Elise Cato  
Benjamin Silas Hobson  
Aaron Anthony Weiss  
Allison Marie Williams

Joshua Brett Bowen  
Anna Radford Duerr  
Anita Madia James  
Anna Elaine Sparks-Hedman

**Bachelor of Science  
in Aerospace Engineering**

Highest Honor  
Maria Carolina Galvis  
Clifford Edward May  
Jason Michael Oubre  
Bradley Paul Regnier  
Julie Marie Sapp  
Thomas Michael Werner

High Honor  
Andrew Paul Saulters

Livia D. Carneiro  
Stras Orion Gofton  
Benjamin James Hamilton  
Vickie Renee Maul  
Claire Elisabeth Nagel  
Carey Patrick O'Kelley  
Christopher Ryan Parker  
Zachary John Snider  
Michael James Sullivan  
David M. Thomas

**Bachelor of Science in  
Chemical and Biomolecular  
Engineering**

Highest Honor  
Jaeyun Sung

High Honor  
Justin Michael Haller

Lariscia Everette Bryan  
Benjamin Steven Hensley  
Joshua Daniel Hutcheson  
Sahil Kochhar  
Ross Shaker Perchuk  
Craig Thomas Rowe  
Angelique E. Scholl  
James Christopher Shockley  
Gregory Bradley Smith  
Mikhail Valikhovsky

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**Bachelor of Science in  
Chemical and Biomolecular  
Engineering**  
Cooperative Plan

High Honor  
*Kathryn Lee Johnson*

Honor  
*Lisa Michelle Wills*

**Bachelor of Science in Textile  
Enterprise Management**

*Nicole La'Sha Benton*  
*Caroline Elizabeth Clayton*

**Bachelor of Science in Polymer and  
Fiber Engineering**

High Honor  
*Catherine Ann Andrae*

*William John Martin IV*  
*Kelly Danielle Price*

**Bachelor of Science in Polymer and  
Fiber Engineering**  
Cooperative Plan

High Honor  
*Rebecca Lynn Stoklosa*

**Bachelor of Science  
in Civil Engineering**  
Regional Engineering Program

Highest Honor  
*William B. Cooper*  
*Jason Thomas Wiggins*

*Matthew James Barrow*  
*Virginia Frances Brown*  
*Rodney Derek Harper*  
*Sean Martin Higgins*  
*Matthew Dale Ricks*  
*Justin D. Singleton*  
*Eric Ryan Wilkinson*

**Bachelor of Science  
in Civil Engineering**

Highest Honor  
*Patrick Britt Devereux*

*Alison Suzanne Gower*  
*Brian Justin Hill*  
*David Nathan King*

High Honor  
*Anna Buseman-Williams*  
*Kelly Benjamin Davis*  
*Katherine Louise Gustashaw*  
*Lauren Elizabeth Handell*  
*Kyoungee Hee Lee*

Honor  
*John Philip Bailey*  
*Christopher Brad Robinson*  
*Mariam Yousuf*

*Channing Henry-Clayton Baker*  
*Ronald Joseph Barbieri Jr.*  
*Joseph Brannon Barter*  
*Roberto G. Blackman*  
*Mohannad Ismail Breiweesh*  
*Douglas Alexander Butler Jr.*  
*Julio Cesar Cruz*  
*Teresa Ann Drew*  
*Shawn Michael Gleason*  
*Chad Michael Havens*  
*Jennifer Lauren Johnson*  
*Vandiver William Keller Jr.*  
*Adam Gregory Kirk*  
*Kaleah De'Nay Lambert*  
*Rafael Camilo Lawrence*  
*Brendan Michael McArdle*  
*Donald Tyler McIntosh*  
*Sandra Anne Miller*  
*Stephen Walter Moore*  
*James Michael Murphy*  
*Binh H. Nguyen*  
*Hugh Oscar Reilly*  
*Ronald Williams Rogers Jr.*  
*Jennifer Lauren Stephens*  
*Duyen Giao Thai*  
*Brenda Grissell Vargas*  
*Samuel Jacob Walker*  
*Jessica Louise Winston*

**Bachelor of Science  
in Civil Engineering**  
Cooperative Plan

Highest Honor  
*Joel Ryan Rapp*

High Honor  
*Christopher Michael Holdsworth*  
*Peter Michael Jenior*  
*Michael Todd Lankford*  
*Claudia Bernice Russell*



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**Bachelor of Science  
in Electrical Engineering**  
Regional Engineering Program

*Hassein Jerez Bashirian  
Lee Harold Stargell Jr.  
Bridgett Helen Tylor*

**Bachelor of Science  
in Electrical Engineering**

**Highest Honor**  
*Jeremy Nathan Ballard  
Gilles-Arnaud Bleu-Laine  
Huang Chen  
Alexander William Elium  
Jacques Fortier  
Kyle Evan Howells  
Vincent Paul Lacey  
Cody William Lamb  
Dwifuzi Mansjur  
Angelique Su Man Yeung*

**High Honor**  
*Diana Michelle Bishai  
Imran Abdul Karim Hirani  
Chang Yao Andy Ho  
Kaustubh Johri*

**Honor**  
*James William Barnette  
Justin Lamar Cleveland  
Nicholas Robert Dorsey  
Young Geul Kim  
Clinton Matthew Loudon  
Zubin Noshir Mevawalla  
Christopher Nachmias  
Long Nguyen  
Viral Patel  
Muhammad Asif Raza  
Eric Joseph Richardson  
Esther Ann Shieh  
Dustin Terry Smith*

*Odianoson D. Agenmonmen  
James Arthur Armstrong  
Richard Allen Bedell  
Robert William Booth Jr.  
Terence Levor Brady  
Jean Jacques Brou  
Wai-Ling Chan  
Marcus Anton Cylar  
Zhe Fan  
Brandon Ray Fickler  
Matthew Lee Gochmour  
James Michael Guyton  
Joseph John Frederick Harper*

*Freddy Ho  
Jonathan Scott Koehler  
David Raymond Kummer  
Andrew Kwadwo Larbi-Yeboah  
Vu Quang Le  
Raciel Leiva  
Nicolas Leon  
Chike George Lindsay-Ajudua  
Amanda Beth Lovingood  
Atul Dinesh Mahajan  
Shilpa Mandava  
Dinesh Mantri  
Tyler R. Martin  
Kimhoa Nguyen  
Jaimini S. Panini  
Akshar Rajni Patel  
Dipak Dashrathlal Patel  
David Elliott Peavy  
Dan Thai Phang  
Tori Brianna Purvis  
Brandon Malik Remus  
Ryan Gregory Revels  
Ecleamus Lawson Ricks Jr.  
Amin Hassan Rida  
Rommie Lewis Royal Jr.  
Eric James Schnupp  
Sujoy Sen  
Ian Findly Sharpe  
Aditya Singhal  
Sarah Bethany Skudin  
Jessica Sue Smith  
Joshua Lee Smith  
Reavis Lee Somerville II  
Alan V. Stansfield Jr.  
Khoa Ngoc Truong  
Noah Charles Tyler III  
Nouman Ameer Ali Vadsaria  
Markito J. Vardaoulis  
Endrias Abiy Woldegiorgis*

**Bachelor of Science  
in Electrical Engineering**  
Cooperative Plan

**Highest Honor**  
*Leif Erik Berntsson  
David William Landgren  
Shasha Qiu  
Paul Emanuel Rier III  
Justin Patrick Vogt*

**Honor**  
*Mario Kinley Bordonali  
Nicholas M. Otto*

*Jeremy Donald Altman  
Johnathon Deon Huff*

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*Ian Mark Kappes  
Matthew Raymond Klebosky  
David Aaron Ziskind*

**Bachelor of Science  
in Mechanical Engineering  
Regional Engineering Program**

*Rebecca Leigh Hicks*

**Bachelor of Science  
in Mechanical Engineering**

**Highest Honor**

*Nimir Nirlesh Desai  
Shaohui Foong  
David James Lomax  
John Caleb McFaddin  
John Joel Moody Jr.  
Adam Matthew Ruh  
Bryan Nathan Wilmoth*

**High Honor**

*Robert Lewis Amaro  
Jennifer Natalie Nicole Lynn  
Michael Ka Chun Pang  
Matthew Oliver Powell  
Markus Alexander Wegner*

**Honor**

*Jason Michael Deas  
Ryan M. Kaysen  
Joseph Carl Miller  
Evans Edward Thompson III*

*Kimberly Ann K. Alberts  
Ernest William Ascherman III  
Justin Robert Ballenger  
Brian Christopher Barker  
Lamar Rayshaun Blackmon  
John Boezi III  
Jamie Grace Boncimino  
Marcus Glenn Chatman  
Jonathan Turnbull Chihoski  
Brian Michael Collins  
Joshua Brent Davis  
Ankur Mukesh Desai  
Jonathan Elliot Gaines  
Patrick Joseph Gigandet  
Ryan Edric Glenn  
Ashish Gogia  
Alberto Gomez  
Thomas Oliver Gutierrez  
Gregory Vogt Hahn  
Lorenzo William Hankla  
Jia Lin He*

*Charles Lee Holcombe  
Neil Thomas Hubble  
Hyejin Jang  
Craig L. Joyner  
Eric Finkowicz Kellogg  
Jonathan Louis Klopf  
Hyun Ha Lee  
Kevin John Liekweg  
Robert Cole Luke  
Frank Newton Massa IV  
David Reese McGinnis  
Manuel Marcel McMillan  
Chad David Medlin  
Andrew David Mrasek  
Robert Wayne Murray  
Japheth Rovelle Nelson  
Duy-Vy Khanh Nguyen  
Thai Huu Nguyen  
Michael Garrett Reno  
Jonathan Asher Ruby  
Kenneth A. Sanderson  
Sadat Muhammed Shaikh  
Austin Dee Shoemaker  
Jason Thomas Snooks  
Michael Joseph Starobin  
Michael Shane Upchurch  
Jonathan David Warshaw  
Brian David Williams  
Anthony Paul Wingo*

**Bachelor of Science  
in Mechanical Engineering  
Cooperative Plan**

**Highest Honor**

*Laura Tanya Clark  
Patrick Wilson Cross  
Aditya Dhanrajani  
Christopher Lee Goodman  
Paul Arthur Hatcher  
David Griffin Reid*

**High Honor**

*Jonathan Michael Jobe*

**Honor**

*Britton Samuel Alexander  
Nathaniel Benjamin Black  
Michael Vincent Lorenz*

*Zachry Lee Bates  
Dustin Eric Bergman  
Brian Jeffrey Frankum  
George Freeman Goodyear  
Vi-Vi Thi Nguyen*



*President G. Wayne Clough, Ph.D.  
Georgia Institute of Technology*

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In September 1994, Dr. G. Wayne Clough became the tenth president of the Georgia Institute of Technology and the first alumnus to serve as president. Dr. Clough received his B.S. and M.S. degrees in civil engineering from Georgia Tech in 1964 and 1965, respectively, and a Ph.D. in civil engineering from the University of California, Berkeley, in 1969.

Formerly a faculty member at Duke University, Stanford University, Virginia Tech, and the University of Washington, Dr. Clough served as head of the Civil Engineering Department and dean of the College of Engineering at Virginia Tech, and as provost and vice president for Academic Affairs at the University of Washington.

During his tenure as president, Georgia Tech has served as the Olympic Village for the 1996 Centennial Games, research expenditures have increased from \$212 million to \$370 million, a required computer initiative for all students was implemented, and enrollment has increased from 13,000 to 16,500. More than \$1 billion in private gifts have been secured, and the statewide Georgia Tech Regional Engineering Program has been implemented. A building program of more than \$900 million has been completed, with another \$300 million in planning or design.

Dr. Clough has received eight national awards from the American Society of Civil Engineers, including the 2004 OPAL Award for Lifetime Achievement in Education. He is one of a handful of civil engineers to have been twice awarded civil engineering's

oldest recognition, the Norman Medal, in 1982 and in 1996. He received the George Westinghouse Award from the American Society of Engineering Education in 1986 for outstanding teaching and research. Elected to the National Academy of Engineering (NAE) in 1990, Dr. Clough was awarded the 2001 National Engineering Award by the American Association of Engineering Societies and in 2002 was named an honorary member of the American Society of Civil Engineers.

In 2001, President George W. Bush appointed Dr. Clough to the President's Council of Advisors on Science and Technology, and he currently chairs a nanotechnology task force and previously chaired the Federal Research and Development panel. He is a member of the Markle Foundation Task Force on National Security in the Information Age. Other current service activities include: chair, Governor's Telecommunication Task Force; member, Executive Committee of the U.S. Council on Competitiveness (co-chair of the National Innovation Initiative); and member, NAE (chair of the Engineer of 2020 Project). Dr. Clough is a member of the Executive Committee of the Metro Atlanta Chamber of Commerce and a trustee of the Georgia Research Alliance. He serves on the Board of Advisors for Noro-Moseley Partners, the Southeast's largest venture capital fund, and the Board of Directors of TSYS of Columbus, Georgia. He serves as a special consultant to the San Francisco Bay Area Rapid Transit System for ongoing major seismic retrofit operations. For seven years *Georgia Trend* magazine has listed him among the 100 Most Influential People in Georgia.

Dr. Clough's interests include technology and higher education policy, economic development, diversity in higher education, and technology in a global setting. His academic specialty is geotechnical and earthquake engineering, and he has published more than 120 papers and reports and six book chapters.

# *Undergraduate Commencement Speaker* *The Honorable Shirley Franklin*

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In 2002, Shirley Franklin became the fifty-eighth mayor of Atlanta. A first-time candidate for public office, Franklin redefined history and was elected as the city's first woman mayor and the first African American woman to serve as mayor of a major southern city. She was re-elected to a second term on November 8, 2005.

Her public service career began in 1978 as commissioner of cultural affairs under Mayor Maynard Jackson. Under the leadership of Mayor Andrew Young, she was later named chief administrative officer, becoming the first woman in the country to hold that position. When Mayor Jackson was re-elected to a third term, Franklin continued her public service as executive officer of operations. In 1991, she also served as senior vice president for external relations for the Atlanta Committee for the Olympic Games and served as CEO of Shirley Clarke Franklin & Associates, a management and consulting firm for public and community affairs. In 1998, Franklin was appointed to serve on Governor Roy Barnes' three-person transition team and later was asked to serve on the Georgia Regional Transportation Authority, where she was elected vice chair.

Since her first inauguration in 2002, Mayor Franklin has worked to build a "Best in Class" city by strengthening existing frameworks, implementing progressive changes, and making the tough decisions necessary to improve Atlanta. When Franklin took office, she discovered a deficit of more than \$82 million. To restore financial stability, Franklin made difficult decisions that have resulted in a balanced budget for three consecutive years and

have generated a healthy reserve. The adjustments in financial accountability resulted in the city receiving the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association in 2004.

Mayor Franklin vowed to give Atlantans the cleanest urban streams and rivers in the country and declared herself "the sewer mayor." In 2004, she persuaded Georgia Tech President Wayne Clough to chair a panel of nationwide environmental experts to design a program that became Clean Water Atlanta. The panel recommendations laid the foundation for a \$3.2 billion overhaul of the city's aging water and sewer system. Franklin convinced the General Assembly to allow Atlanta to place a municipal option sales tax before the voters. Atlantans overwhelmingly passed the sales tax referendum generating money for Clean Water Atlanta and reducing the necessary increase in water and sewer rates.

Franklin's commitment to her community is exemplified by her service on more than forty boards and committees throughout her career. She currently serves as a member of the Democratic National Committee and treasurer of the Democratic Party of Georgia. She is the Georgia Municipal Association's second vice president, chair of the Travel and Tourism Task Force, and chair of the U.S. Conference of Mayors' Women's Caucus. She also is chair of the Atlanta Development Authority and the Brand Atlanta Campaign. She is a member of the National Conference of Black Mayors' Business Council; and secretary of the Board of the Atlanta Regional Commission, chair of its Ethics Committee, and secretary of its Executive Committee.

Franklin earned her bachelor's degree in sociology from Howard University and was awarded her master's degree in sociology from the University of Pennsylvania. She was awarded honorary degrees from Howard University and the Atlanta College of Art. Franklin has been a resident of southwest Atlanta for nearly thirty-five years and is a proud parent of three adult children.



*Master's and Ph.D. Commencement Speaker  
Michael Griffin, Ph.D.*

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Nominated by President George W. Bush and confirmed by the United States Senate, Dr. Michael Griffin began his duties as the eleventh administrator of the National Aeronautics and Space Administration (NASA) on April 14, 2005.

As administrator, he leads the NASA team and manages its resources as NASA seeks to advance the U.S. Vision for Space Exploration.

Prior to being nominated as NASA administrator, Griffin was serving as head of the Space Department at Johns Hopkins University's Applied Physics Laboratory in Laurel, Maryland. He was previously president and chief operating officer of In-Q-Tel, and also served in several positions within Orbital Sciences Corporation in Dulles, Virginia, including chief executive officer of Orbital's Magellan Systems Division.

Earlier in his career, Griffin served as chief engineer and as associate administrator for exploration at NASA, and as deputy for technology at the Strategic Defense Initiative

Organization. He has been an adjunct professor at the University of Maryland, Johns Hopkins University, and George Washington University, where he taught courses in spacecraft design, applied mathematics, guidance and navigation, compressible flow, computational fluid dynamics, spacecraft attitude control, astrodynamics, and introductory aerospace engineering. He is the lead author of more than two dozen technical papers, as well as the textbook, "Space Vehicle Design." A registered professional engineer in Maryland and California, Griffin is a fellow of the American Astronautical Society and the American Institute of Aeronautics and Astronautics (AIAA), and is a member of the Institute of Electrical and Electronic Engineers. He is a recipient of the NASA Exceptional Achievement Medal, the AIAA Space Systems Medal, and the Department of Defense Distinguished Public Service Medal, the highest award given to a non-government employee.

Griffin received a bachelor's degree in physics from Johns Hopkins University, a master's degree in aerospace science from Catholic University of America, a Ph.D. in aerospace engineering from the University of Maryland, a master's degree in electrical engineering from the University of Southern California, a master's degree in applied physics from Johns Hopkins University, a master's degree in business administration from Loyola College, and a master's degree in civil engineering from George Washington University. He is a certified flight instructor with instrument and multi-engine ratings.

# *Honorary Degree Recipient*

## *Alan C. Kay, Ph.D.*

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Dr. Alan Kay, president of Viewpoints Research Institute Inc., is best known for the ideas of personal computing, the intimate laptop computer, and the inventions of the now ubiquitous overlapping-window interface and modern object-oriented programming. His deep interest in the education of children was the catalyst for these ideas, and it continues to be a source of inspiration.

One of the founders of the Xerox Palo Alto Research Center (PARC), Kay led one of several groups that developed modern workstations (and the forerunners of the Macintosh); Smalltalk, the overlapping-window interface; Desktop Publishing; the Ethernet; Laser printing; and network "client-servers."

Prior to his work at Xerox, Kay was a member of the University of Utah Advanced Research Project Agency (ARPA) team that developed 3-D graphics. There, he earned a doctorate with distinction in 1969 for the development of the first graphical object-oriented personal computer. He holds undergraduate degrees in mathematics and molecular biology from the University of Colorado. Kay also participated in the original design of the ARPANet, which later became the Internet.

Kay has served as chief scientist of Atari, a fellow of Apple Computer, vice president of Research and Development at The Walt Disney Company, and senior fellow at the Hewlett-Packard Company. In 2001, he founded Viewpoints Research Institute, a non-profit organization located in Glendale, California, where he serves as president.

Kay has received numerous honors, including the Association for Computing Machinery (ACM) Software Systems Award, the ACM Outstanding Educator Award, the ACM Turing Award (2003), the J-D Warnier Prix D'Informatique, and the NEC C&C Prize 2001. He has been elected a fellow of the American Academy of Arts and Sciences, the National Academy of Engineering, the Royal Society of Arts, and the Computer Museum History Center. He is a recipient of the ZeroOne Award from the University of Berlin, and recently received an honorary doctorate from the Royal Institute of Technology. He was inducted into the Utah Information Technology Association Hall of Fame in 2003, awarded the Draper Prize by the National Academy of Engineering in 2004, and most recently was designated laureate (in advanced technology) by the Inamori Foundation and awarded the 2004 Kyoto Prize.

A former professional jazz guitarist, composer, and theatrical designer, Kay is now an amateur classical pipe organist.



## The Mace

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In academic ceremonies, the mace is an ornamental staff carried as a symbol of authority. The office of the mace bearer,

though purely ornamental, dates back to medieval England when special occasions required the use of a bodyguard. In colonial America, the mace became a symbol of office when it was used in conjunction with academic regalia.

The Georgia Tech mace carried in today's ceremony was designed by Cabell Heyward, a former research scientist in the College of Architecture, and was first used in April 1988 at the presidential installation of John P. Crecine. The mace was made possible by a gift from the Georgia Tech Student Foundation and the Class of 1934.

The primary focus of the mace is its three brass rods, which demonstrate the principle of "tensegrity," a concept of structure combining tension and integrity developed by R. Buckminster Fuller in 1927. The integrity, or wholeness, of the mace is maintained by each of the rods being held in place by the tension of the steel wire; the rods do not touch one another at any point.

The brass rods symbolize the three primary components of Georgia Tech's mission: education, research, and service. The gold color of the brass and the white color of the steel wire represent Georgia Tech's colors. The mace also incorporates three silver metallic seals, which are reproductions of the official seal of the state of Georgia, the original seal of Georgia Tech, and the current seal of the Institute.



The mace was fabricated by Mr. Heyward and Arthur Schoenfeld, who are both formerly with the Center for Assistive Technology and Environmental Access in the College of Architecture, in conjunction with Atlanta jeweler Robert Nagle.

# Academics, Research, and Athletics

## College of Computing

The College of Computing houses one of the largest interdisciplinary computer science programs in the country, forging relationships across campus and with universities around the world. The College provides the highest quality instruction and is dedicated to the integration of computing knowledge into all aspects of life.

The College also has four interdisciplinary research centers: the Georgia Tech Information Security Center (GTISC); the Graphics, Visualization and Usability Center (GVU); Center for Experimental Research in Computer Systems (CERCS); and the Modeling and Simulation Research and Education Center (MSREC).

More than 1,500 students are enrolled in the college, including approximately 1,100 undergraduates and 476 graduate students. Prominent alumni of the College include Craig Mundie (1971, 1972), senior vice president and CTO, Advanced Strategies and Policy, Microsoft; Jim Allchin (1983), platform group vice president, Microsoft; Timothy Saponas (1981), worldwide higher education manager, Intel; James Folsom (1970, 1972), strategic advisor and CEO, Motorola; Edith M. Martin (1976, 1980), chief financial officer, Eastman Kodak; and Githesh Ramamurthy, (1983), president, CCC Information Services.

## Ivan Allen College of Liberal Arts

The Ivan Allen College, created in 1990, is the liberal arts college of Georgia Tech. The curriculum and research initiatives of the College are designed to explore the crucial union of science, technology, the humanities, and the social sciences. The six schools within the College include Economics; History, Technology, and Society; the Sam Nunn School of International Affairs; Literature, Communication, and Culture; Modern Languages; and Public Policy. The College enrolled 715 undergraduates and 248 graduate students in the fall of 2004.

The College has been an innovative leader in such fields as information and game design, educational technologies, Internet governance, international economics, international security, and the advancement of women in science and engineering, among other areas. In addition to promoting interdisciplinary research in a wide range of areas, the Ivan Allen College has earned a reputation for excellence in teaching, both at the Institute and national levels. One of the College's ongoing initiatives is the increasing application of computers and use of state-of-the-art audiovisual equipment in the classroom. Many Ivan Allen College graduates have become respected professional and national leaders.

## College of Architecture

The School of Architecture became the College of Architecture in 1975. In the fall of 2004, 736 undergraduate and 352 graduate students were enrolled in the various academic programs of the College, including architecture, building construction, city and regional planning, doctoral studies, industrial design, and music. Although the College presently offers only a minor in music, approximately 1,140 students, representing all colleges at Georgia Tech, enrolled in music courses each semester in 2004-2005.

Some of the College's more prominent alumni include John Portman (1950), John Portman and Associates, designer of Peachtree Center; George Heery (1950), former chairman of the board, Heery International, designer of the Coca-Cola Building; Thomas W. Ventulett III (1958), senior principal of Thompson, Ventulett, Stainback and Associates, designer of CNN Center in Atlanta and the McCormick Place complex in Chicago; Mack Scogin (1967), former chair of the Department of Architecture at Harvard University; and Michael Arad (1999), designer of the World Trade Center Memorial in New York.

Research programs in the College of Architecture



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include the Center for Assistive Technology and Environmental Access, the Construction Resources Center, the Center for Geographic Information Systems, the IMAGINE Group, the Advanced Wood Products Laboratory, and the Center for Quality Growth and Regional Development.

### *College of Management*

The intersection of business and technology is at the heart of the College of Management, the business school at Georgia Tech. Today that focus is more relevant than ever before. Leveraging Georgia Tech's strengths in entrepreneurship and technology innovation, the program grounds students in critical thinking and teaches them to perform in a highly technological and global environment. The interdisciplinary nature of the curriculum stresses teamwork, cultural diversity, and relevant solutions to real-world problems to create a solid educational foundation for the business leaders of tomorrow.

Georgia Tech's business school, which enrolled approximately 1,122 undergraduates, 256 graduate students, and 32 executive master's students in fall 2003, has earned a place among the most highly respected business programs in the nation since it was established in 1913. Today, the business school offers bachelor's, M.B.A., executive master's, and Ph.D. degrees, as well as a wide range of programs for executives and professionals.

### *College of Sciences*

Established from the former College of Sciences and Liberal Studies, the College of Sciences provides programs in the natural, mathematical, and behavioral sciences.

The specialized academic programs in the Schools of Applied Physiology, Biology, Chemistry and Biochemistry, Earth and Atmospheric Sciences, Mathematics, Physics, and Psychology attract students who have strong interest in science and mathematics and are interested in relating their educational

experience to social, governmental, industrial, and postgraduate fields.

In the fall of 2004, the College enrolled 974 undergraduate students and 750 graduate students. Some high-profile graduates of the College of Sciences are Ashworth Stull (1937), inventor of the "White Glue" that became known as Elmer's Glue; Glen P. Robinson Jr. (1948, 1950), founder of Scientific-Atlanta and owner of patents on solar energy and antenna systems and energy; Kary B. Mullis (1966), inventor of polymerase chain reactions and 1993 Nobel Prize recipient in chemistry; Gilbert F. Amelio (1965, 1967, 1968), former chairman and CEO, Apple Computer; and Nancy "Jan" Davis (1975), astronaut.

### *College of Engineering*

From the opening of the Institute and the establishment of the School of Mechanical Engineering in 1888, the College of Engineering has continually grown. Today, the College incorporates ten degree-granting units with a 2003 total enrollment of 9,843 students. It consistently ranks among the top five engineering schools in the country, both in size and program quality.

The current dean of the College, Don P. Giddens (1967), earned all three of his degrees at Tech. Other outstanding alumni include Ronald Wayne Allen (1964), former chairman and CEO, Delta Air Lines; C. Garry Betty, (1979), CEO, EarthLink; Mario Canahuati, (1977), Honduran ambassador to the United States; former President Jimmy Carter (1946); Michael T. Duke, (1971), president and CEO, Wal-Mart USA; Thomas L. Gossage, (1957), former chairman, president, and CEO, Hercules Inc.; Major Gen. Ronald Johnson (1985), U.S. Army Corps of Engineers; James R. Jolly Jr. (1964), chairman and CEO, Johnson and Johnson Industries Inc.; Sandra H. Mangus, (1996), astronaut, NASA Shuttle Atlantis; Robert B. Ormsby (1945), president, Lockheed Corporation-Aeronautical Systems Group; David A. Perdue, (1972, 1976), chairman and CEO, Dollar General;

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Agustin A. "Gus" Ramirez, (1968, 1969), chairman, president, and CEO, Husco International Inc.; and Malcolm T. Stamper (1946), vice chairman of the Board, Boeing Company.

### *Athletics*

At Georgia Tech, academics and athletics truly do mix, and the Institute is rich in both traditions. Tech competes on the NCAA Division I level within the twelve-member Atlantic Coast Conference, a league that places high emphasis on academics. Memorable alumni include Robert Tyre "Bobby" Jones, 1930 winner of golf's Grand Slam; Olympic track gold medalists Antonio McKay, Derrick Adkins, and Derek Mills; basketball standouts Mark Price and John Salley; baseball greats Nomar Garciaparra and Kevin Brown; professional golfers David Duval, Stewart Cink, and Matt Kuchar; and fourteen members of the National Football Foundation's College Football Hall of Fame.

Tech athletes have been led by legendary coaches such as Bobby Dodd, 1945-66; John Heisman, 1904-19; William Alexander, 1920-44; John "Whack" Hyder, 1952-73; and Bobby Cremins, 1982-2000.

Intramural sports are available to all students. More than twenty activities, ranging from crew to weight training, are offered.

### *Georgia Tech Research Institute*

The Georgia Tech Research Institute (GTRI) is the nonprofit, applied research arm of the Georgia Institute of Technology. GTRI conducts groundbreaking research, educational programs, and economic development initiatives that advance the global competitiveness and security of Georgia, the region, and the nation.

The GTRI team includes many of the nation's leading researchers, who spend each day helping make the world a better, safer place.

GTRI's approximately 1,200 employees perform or support more than \$130 million in research yearly for clients in

federal, state, local, and international government agencies, industrial firms, academic institutions, and private organizations.

Research areas include aerospace, transportation, advanced systems, electronics systems, electro-optics, environmental science, materials characterization, information technology and telecommunications, sensors, electromagnetic applications, and signatures technology, among others.

GTRI's work promotes Georgia's industrial and economic development; encourages development of Georgia's natural resources; and supports national programs of science, technology, emergency preparedness, national defense, and homeland security.

### *Library and Information Center*

The Georgia Tech Library functions as a client-oriented information center focusing on the data and information needs of students, faculty, and staff.

The first library of Georgia Tech was established in 1899 and consisted of a room in the Administration Building housing fewer than two thousand volumes. Now the library contains more than 1 million volumes, a complete collection of U.S. patents, and more than 2 million technical reports, government documents, and industrial standards.

The explosion of scientific and technical information and the advent of computing, networking, and multimedia technologies are the foundation of the evolution of the library from a building of books to a learning and information center. The library was the first in the nation to provide local online information retrieval capabilities.

The Georgia Tech Electronic Library offers a variety of databases to students and faculty for research, class assignments, and personal information.



## *Academic Degrees*

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### *The Bachelor's Degree*

The bachelor's degree is the oldest academic degree used by institutions of higher education in America. This degree, which represents completion of a four-year course of study at the college level, was first awarded in 1642 to the graduating class of Harvard College.

### *The Master's Degree*

The master's degree represents the successful completion of one or two years of study beyond the baccalaureate degree. This academic honor, which dates back to the establishment of the oldest universities in Europe, usually requires a thesis and an oral examination.

### *The Doctoral Degree*

The doctoral degree is the most advanced academic degree conferred by American institutions of learning. "Doctor," which means teacher or instructor, was used as a title in the twelfth century to denote men of great learning. It was first used as an academic title at the University of Bologna in Italy.

# Traditions

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## *Academic Regalia*

The academic regalia worn by today's participants is a colorful relic dating back to the Middle Ages, when education was a function of religious organizations. The monks' habit and the cowl worn over their heads were predecessors of the modern black gowns and hoods. The mortarboard was developed from the skullcaps worn during medieval days by churchmen officiating at religious services.

In 1894, American universities standardized gown styles for the three different types of degrees. Doctoral degree candidates wear the traditional black gown with full, round sleeves, velvet facings on the front, and velvet bars on the sleeves. Hoods are lined with the color of the university granting the degree. Hoods at Georgia Tech are lined in white and gold. The doctoral hood is distinguished by its blue trim, which is the color representing philosophy.

Master's degree candidates also wear the traditional black gown with full-length square sleeves that have a crescent-shaped piece hanging from each sleeve. The master's hoods are also lined in white and gold and are distinguished on the outside by gold trim, the color of science. Recipients of the bachelor's degree at Tech wear a plain black gown and no hood.

Caps used by all Tech graduates are traditional mortarboards, and tassels are white and gold.

## *The Alma Mater*

*Music by Frank Roman  
Words by I. H. Granath*

Oh, sons of Tech, arise, behold!  
The Banner as it reigns supreme,  
For from on high the White and Gold  
Waves in its triumphant gleam.  
The spirit of the cheering throng  
Resounds with joy revealing  
A brotherhood in praise and song,  
In memory of the days gone by.  
Oh Scion of the Southland!  
In our hearts you shall forever fly.  
We cherish thoughts so dear for thee,  
Oh, Alma Mater in our prayer.  
We plead for you in victory,  
And in the victory we share!  
But when the battle seems in vain  
Our spirits never falter,  
We're ever one in joy or pain  
And our union is a lasting bond.  
Oh! May we be united  
Till the victory of life is won.

## *The Ramblin' Wreck*

I'm a Ramblin' Wreck from  
Georgia Tech  
And a hell of an engineer  
A helluva, helluva, helluva  
Helluva, hell of an engineer.  
Like all the jolly good fellows,  
I drink my whiskey clear.  
I'm a Ramblin' Wreck from  
Georgia Tech  
And a hell of an engineer.

Oh! If I had a daughter, sir,  
I'd dress her in white and gold  
And put her on the campus  
To cheer the brave and bold.  
But if I had a son, sir  
I'll tell you what he'd do—  
He would yell "To Hell with Georgia"  
Like his daddy used to do.

Oh! I wish I had a barrel of rum  
And sugar three thousand pounds,  
A college bell to put it in,  
And a clapper to stir it 'round.  
I'd drink to all good fellows  
Who come from far and near.  
I'm a Ramblin', Gamblin'  
Hell of an engineer.



# *Commencement Committee*

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## Alumni Programs

*David Stokes*

## Announcer

*Dr. Kelly Comfort,  
Dr. Paul Foster, and  
Dr. William Johnson*

## Campus Police

*Police Chief Teresa Crocker  
and staff*

## Graduate Studies

*Maureen Kilroy and  
Tatianna Matthews*

## Institute Communications and Public Affairs

*Aimee Anderson and staff*

## Music Department

*Terri Bassett, Frank Clark,  
Ron Mendola, Christopher Moore,  
and Jerry Ulrich*

## Plant Operations

*Brandon Ford and Staging staff*

## Registrar's Office

*Candy Carson, LaWanda Cole,  
Ann Laros, David Lowery,  
Reta Pikowsky, Deanna Sterns,  
Debbie Williamson, Craig Womack,  
and staff*

## Student Affairs (AdAPTS)

*Tameeka Hunter*

*White and gold ribbons on today's diplomas were hand-tied by disabled employees of the Bobby Dodd Center in Conyers, Georgia. Former Georgia Tech Coach Bobby Dodd was instrumental in securing funding for the vocational rehabilitation training facility that bears his name.*

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