# NORTH CAROLINA STATE UNIVERSITY



# FALL DIPLOMA CEREMONY

# DEPARTMENT of COMPUTER SCIENCE

Friday, December 15, 2017 William Neal Reynolds Coliseum 3:30 P.M.

### Welcome

Welcome to the Fall diploma ceremony of the Department of Computer Science at North Carolina State University, Raleigh. The department was formed in 1967 and is one of the oldest in the nation. The department currently has over 1,700 students. We are among the top in the nation in the number of awarded bachelor's, master's, and doctoral degrees in computer science, and we lead in both teaching and research accomplishments. We continue our tradition of excellence by proudly honoring a new group of graduates.

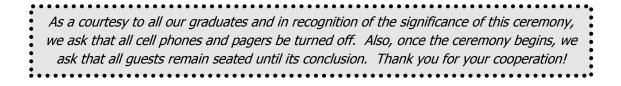
The ceremony today recognizes the academic achievements of the Fall 2017 graduating students receiving bachelor's, master's, or doctoral degrees in the field of computer science. It is a very special, auspicious, and exciting day for all of us -- students, their families and friends, and our faculty and staff, that culminates years of hard work and dedication for all concerned. Students graduating today bring the number of our alumni to over 9,000.

On behalf of the faculty and staff, I would like to thank you for coming, and to extend our warmest congratulations to the students, their families, and their friends.

With best wishes,

Laurie Williams Interim Department Head





## FALL DIPLOMA CEREMONY

#### William Neal Reynolds Coliseum Friday, December 15, 2017 3:30 P.M.

Pre-Processional CommentsKen Tate Director of Engagement and External Relations
ProcessionalPomp and Circumstance Sir Edward Elgar
Welcome Laurie Williams, Ph.D. Interim Department Head
SpeakerMichael S. Lipps President and Chief Operating Officer of MercuryGate
Introduction of Honor Students, Faculty and StaffDennis R. Bahler, Ph.D. Director of Undergraduate Programs
Presentation of DegreesGeorge Rouskas, Ph.D. Director of Graduate Programs
Barbara J. Adams, Ph.D. Director of Advising
Laurie Williams, Ph.D. Interim Department Head
RecessionalTriumphal March From Aida <i>Giuseppe Verdi</i>

# GUEST SPEAKER Michael S. Lipps



Michael Scott Lipps is the President and Chief Operating Officer of MercuryGate International, a high-growth private equity-backed cloud software company in the Supply Chain Transportation Management segment. MercuryGate is a leading provider of cloud solutions and powerful analytics for the multi-billion dollar global transportation market, enabling manufacturers and distribution companies to deliver global goods faster and more efficiently. In his role, Mr. Lipps leads all aspects of the company's operations, including software development, product management, financial operations, marketing and sales.

Prior to MercuryGate, Mr. Lipps was Division CEO of LexisNexis, leading a global software division headquartered on NC State's Centennial Campus. Mr. Lipps led a portfolio of software businesses designed to support both the business and practice of law, building the North Carolina division from 90 to over 650 employees in a span of 5 years and doubling business revenues. He led LexisNexis North Carolina to be named the Technology Workplace of the Year by the North Carolina Technology Association in 2012, was named CIO of the year in the Triangle in 2014 by the Triangle Business Journal, and achieved Forbes prestigious Top Ten Employers in the US Tech Sector in 2015, alongside Google, Facebook and Intuit.

Prior to LexisNexis, Mr. Lipps spent 14 years in Silicon Valley at Intuit, Inc., leading a number of businesses including QuickBooks, the #1 rated small business financial accounting software product in the US with over 4 million customers. At Intuit, he held a variety of leadership roles including General Management, Software Product Management, Marketing, and Organizational & Process Management. He is a trained Six Sigma Black Belt.

Mr. Lipps has held roles as a member of the Advisory Board for the North Carolina Virtual Public Schools system and was most recently honored to be the Chairman for the American Heart Association's 2017 Triangle Heart Walk campaign. Born in Oakland, CA and son of a long-time public school teacher, he is a proud product of the California state public school system, attending California State University in Hayward, CA.

Mr. Lipps lives in North Raleigh with his wife Terri, two teenage children and a hyperactive Bichon Frise, where he is still pursuing his lifelong dream of committing his entire library of Dr. Seuss books to memory.

# **COMPUTER SCIENCE DEGREES**

#### **Doctor of Philosophy**

A Doctor of Philosophy (Ph.D.) is the highest academic degree an individual can earn. In addition to completing coursework specified by the advisory committee (54 or more credits beyond the master of science), Ph.D. students must demonstrate breadth of knowledge, pass a series of examinations, and defend a substantial and original scholarly dissertation.

#### **Master of Science**

The Master of Science (M.S.) is a traditional research-oriented degree. Master of Science graduates have successfully completed advanced coursework in computer science. Students with thesis titles below their name have written and defended a thesis summarizing their supervised research.

#### Master of Science in Computer Networking

Master of Science in Computer Networking (MSCN) graduates have successfully completed advanced coursework in computer networking. Students with thesis titles below their name have written and defended a thesis summarizing their supervised research.

#### **Master of Computer Science**

The Master of Computer Science (MCS) program is a professional degree program designed primarily to meet the needs of industry. Master of Computer Science graduates have successfully completed advanced coursework in computer science.

#### **Bachelor of Science**

The Bachelor of Science (B.S.) degree is conferred upon students who have successfully completed a program of study including both general coursework in the humanities, social sciences, mathematics, and physical sciences as well as specialized courses in computer science.

### **CHRISTOPHER FINAN ARGENTA**

**Dissertation:** Recognizing Teams and Their Plans: General Plan Recognition in Multi-Agent Domains

**Committee Chair:** Jon Doyle, Ph.D.

Chris Argenta graduated from Wake Forest University in 1992 with a double major in Computer Science and Fine Art (studio). He then completed his Masters of Computer Science in 1995 at the Michigan Technological University, with a focus on high performance computer architectures.

Since graduating, Chris worked in the defense sector at ACSI, GTE Government Systems, General Dynamics, and Rockfish Research. He is currently working for Applied Research Associates (ARA), where he is the Decision Systems Group Leader and a Distinguished Member of the Technical Staff.

While working full time, Chris started taking classes at NC State, with particular interest in Artificial Intelligence. He commenced the Ph.D. program in Computer Science at NC State in 2009. Chris has absolutely not been abducted by aliens twice; please do not spread that story.

### AMIR HASSAN BAHMANI

**Dissertation:** Scalable Communication Tracing via Clustering

**Committee Chair:** Frank Mueller, Ph.D.

Amir Bahmani grew up in Mashhad, Iran, where he obtained his undergraduate degree in software engineering at Azad University of Mashhad.

In 2010, he moved to the U.S. to pursue his graduate studies at the Computer Science Department at Missouri University of Science and Technology. In Fall 2012, he transferred to NC State. At NC State, he joined Dr. Frank Mueller's lab, where his research focused on design and implementation of a scalable tracing toolset for large-scale MPI applications.

In 2014, he lost his spouse, Someyra, to cancer. This event influenced him to dedicate his career to medical research. His initial step was to create a network of computer scientists and medical researchers at NC State, UNC, Duke, and Stanford to provide scalable solutions for computationally intensive medical applications.

In 2017, Amir joined the Stanford School of Medicine as a researcher collaborating with scientists at Stanford and Google Genomics to provide scalable solutions for large-scale medical applications.

He recently married Christine, and he is enjoying life in the Silicon Valley.

### **GONZALO ALEJANDRO BELLO LANDER**

**Dissertation:** *Multi-Objective Graph Mining Algorithms for Detecting and Predicting Communities in Complex Dynamic Networks* 

**Committee Chair:** Nagiza Samatova, Ph.D.

Gonzalo A. Bello Lander grew up in Caracas, Venezuela, where he received a B.E. in Systems Engineering from Universidad Metropolitana in 2010. He then moved to Raleigh, NC, to pursue graduate studies at NC State. At this institution, he received an MS in Computer Science in 2015 and a Ph.D. in Computer Science in 2017, both under the supervision of Dr. Nagiza Samatova.

In his dissertation, Gonzalo developed multi-objective algorithms for community detection in complex networks and studied their applications in social network analysis and climate informatics. His work has been published in top conferences in data mining, such as the European Conference on Machine Learning and Knowledge Discovery in Databases (ECML PKDD). His most recent paper received the Best Student Paper Award at the 12th International Conference on Advanced Data Mining and Applications (ADMA).

After completing his dissertation, Gonzalo moved to Chicago, IL, where he is currently a Teaching Assistant Professor at the University of Illinois at Chicago (UIC). He teaches undergraduate courses in Computer Science, including discrete mathematics and theory of computation.

## SHIREESH BHAT

#### **Dissertation:** Network Service Orchestration within the ChoiceNet Architecture

**Committee Co-Chairs:** Rudra Dutta, Ph.D. and George Rouskas, Ph.D.

Shireesh Bhat grew up in India, where he obtained his BS degree in Computer Science at RVCE in Bangalore in 2005.

Shireesh worked at a startup company and later at Cisco for several years before he moved to Raleigh, NC, in pursuit of his MS degree.

He transferred to the Ph.D. program in the second year of his MS degree. His dissertation developed new semantic and composition algorithms for the Future of Internet Design.

Shireesh wishes to pursue a career in academia in the quest for excellence.

### PHILIP SHERIDAN BUFFUM

**Dissertation:** Design and Analysis of Virtual Learning Companions for Improving Equitable Collaboration in Game-Based Learning

**Committee Co-Chairs:** Tiffany Barnes, Ph.D. and Kristy Boyer, Ph.D.

Philip Sheridan Buffum grew up in Rhode Island, where he obtained his BS degree in Classics at Brown University. He worked in urban education for several years, during which time he became interested in learning technologies. He subsequently enrolled in Computer Science and Mathematics courses at the University of Rhode Island, in preparation for graduate school.

Philip moved to Raleigh, NC, in 2012, to pursue his Ph.D. at NC State. For his dissertation, he developed virtual agents for helping middle school students collaboratively learn computer science within a game-based learning environment. He has disseminated his research findings in both artificial intelligence and computer science education publications.

As he pursues faculty positions, Philip will continue his research on how we can better design game-based learning environments that produce equitable and effective learning outcomes for all students.

### YUFEI DING

**Dissertation:** *High-Level Program Optimizations for Data Analytics* 

Committee Chair: Xipeng Shen, Ph.D.

In 2012, Yufei Ding started her Ph.D. studies in Computer Science. Her research interests reside at the intersection of Compiler Technology and (Big) Data Analytics, with focus on enabling high-level program optimizations for data analytics and other data-intensive applications.

Yufei has been actively publishing in major venues in both computer systems and data analytics areas, such as ASPLOS, PLDI, OOPSLA, VLDB, ICDE, and ICML. She was the recipient of an NC State Computer Science Outstanding Research Award in 2016.

Yufei received her Ph.D. from the Computer Science Department at NC State, and BS and MS degrees in Physics from the University of Science and Technology of China and the College of William and Mary, respectively.

Yufei joined the Department of Computer Science, University of California at Santa Barbara as an Assistant Professor on November 1, 2017.

### PRAIRIE ROSE GOODWIN

Dissertation: Error Recovery Microstrategies in a Touch Screen Environment

**Committee Chair:** Robert St. Amant, Ph.D.

Prairie Rose Goodwin grew up in the Black Hills of South Dakota before moving to Virginia where she took some time away from school to ponder her future prospects. Afterwards, she completed her BS degree in Computer Science at Vassar College in New York, with minors in Mathematics, Greek and Roman Studies.

Upon completion, she decided that she liked it on the East Coast, and moved to Raleigh, NC, where she received the Dean's Doctoral Fellowship and completed both her MS and Ph.D. degrees at NC State.

Her dissertation focused on cognitive modeling of errors in touch screen environments, such as smartphones and tablets. Her work leveraged patterns of unconscious behavior (known as microstrategies), to improve the delivery of visual feedback. Over the course of her studies, she presented her work both domestically and internationally, and published in both conferences and journals.

Since moving here, Prairie Rose has put down roots in the area and plans to stay in this area long term. From here, she will be adding her knowledge to SAS's Internet of Things team as an IoT Product Developer.

### **MICHAEL C. GRACE**

Dissertation: Privilege Leakage in Practical Systems

**Committee Co-Chairs:** William Enck, Ph.D. and Xuxian Jiang, Ph.D.

Mike was born in Florida, moved to Connecticut as a child, and split the difference by living in North Carolina for most of his adult life. He grew up alongside the IBM Personal Computer, so it really shouldn't come as a surprise that he would wind up studying Computer Science. Still, the path to graduation wasn't exactly straight, and it definitely was not narrow.

During his college search, he initially didn't want to get out of the car at NC State. Fortunately, the staff at the University Scholar's Program were able to talk some sense into him, and he happily enrolled as a Ben Franklin Scholar. Classes in Electrical Engineering and Sociology somehow resulted in a degree in Computer Science, though still with a deep and abiding interest in people.

Graduate school followed. Having sampled, (among other things), bioinformatics, artificial intelligence, grid computing, and accessibility, he finally settled on computer security after a fortuitous meeting with one of his advisorsto-be, Dr. Xuxian Jiang.

In August 2013, he took a position with Samsung under Dr. Peng Ning and Dr. Injong Rhee, both professors in the Department. Given the pressures of industry, he is very grateful for the support of his co-advisor, Dr. William Enck, in completing his dissertation — and a great many others within the department for their kind words and patience throughout the whole process.

### **STEVEN DOUGLAS HARENBERG**

**Dissertation:** Targeted Graph Mining for Efficient User-Relevant Knowledge Discovery

**Committee Chair:** Nagiza Samatova, Ph.D.

Steve Harenberg grew up in Brevard, North Carolina, and received his BS degree in Mathematics from the University of North Carolina at Chapel Hill in 2011. Afterwards, he moved to Raleigh to begin a Ph.D. in Computer Science at NC State, under Dr. Nagiza Samatova.

His research focused on the design and analysis of graph mining algorithms and their application to real-world problems. During his Ph.D. studies, Steve had a research aide appointment at Argonne National Laboratory and an internship at SAS Institute.

Upon the completion of his dissertation, he will work for SAS Institute as a Machine Learning Developer.

### ANDREW GREGORY HICKS

**Dissertation:** Design Tools and Data-Driven Methods to Facilitate Player Authoring in a Programming Puzzle Game

**Committee Chair:** Tiffany Barnes, Ph.D.

Drew Hicks was born in Parkersburg, West Virginia. While earning a BS degree in Computer Science from Marietta College in Marietta, Ohio, he attended a Research Experience for Undergraduates under Dr. Tiffany Barnes at the University of North Carolina at Charlotte. Her mentorship and guidance led him to pursue a MS in Computer Science, during which he began pursuing the research questions that form the basis of his dissertation on the design of user authoring tools to facilitate high quality puzzle creation in the programming puzzle game, BOTS.

During his academic career, Drew earned a Graduate Research Fellowship from the National Science Foundation, taught computer programming to young students at Athens College in Greece, and helped mentor several undergraduates to begin their own research. He collaborated with researchers at TERC to predict player dropout and measure implicit science learning in games, and led a team including graduate students and undergraduates to design and develop BOTS, a programming puzzle game, and to implement the game as an activity in camps and after-school programs for STEM outreach.

Drew is an analog and digital game designer and member of the Game Designers of North Carolina. Since 2016, he has worked at IBM Watson as a Cognitive Software Developer, developing deep learning models to improve the processing of medical text. These experiences have driven him to never stop learning, never stop teaching, and never stop playing.

### **BRITTANY ITELIA JOHNSON**

**Dissertation:** A Tool (Mis)communication Theory and Adaptive Approach for Supporting Developer Tool Use

Committee Co-Chairs: Sarah Heckman, Ph.D. and Emerson Murphy-Hill, Ph.D.

Brittany grew up in Sumter, SC. After graduating high school, she moved to Charleston, SC where she received her BS degree in Computer Science from the College of Charleston in 2011.

Brittany moved to Raleigh in 2011 to complete her Ph.D. at NC State. Her dissertation proposed a communication theory and adaptive approach for improving communication between software developers and their tools. During her Ph.D. studies, she was awarded an NSF Graduate Research Fellowship to fund her research. She has published and presented her work at various venues, both formally and informally.

Upon completing her Ph.D. studies, Brittany moved to Amherst, Massachusetts where she is now a postdoctoral researcher at the University of Massachusetts, Amherst. Her work there focuses on creating and refining new testing disciplines and approaches that will help developers produce better, and fairer, software.

### PAUL JONES

#### **Dissertation:** Self-Tracking Instrumentation Agents and Analytics to Enable Knowledge Creation and Collaborative Intelligence from Analytical Workflows

**Committee Chair:** Nagiza Samatova, Ph.D.

Paul Jones graduated from Cambridge University, England, in June 1999 with a MS in Engineering, specializing in Electrical and Information Sciences. He gained a First Class degree with Distinction, and was awarded the Mike Lynch prize in Engineering, as well as a lifelong scholarship of Christ's College, Cambridge.

Since then he has been an employee of Her Majesty's Government, and has taken on a variety of technical and leadership roles. These included a seven-year collaboration with IBM Research, in which he worked on a groundbreaking streaming analysis platform, and helped to establish general design principles and architectural underpinnings for a new breed of complex stream processing applications. He became a Chartered Engineer in 2003 and has been an active member of the IET, IEEE and ACM ever since, working to promote careers in science and engineering to young people through community events.

Paul joined the Laboratory for Analytic Sciences (LAS) in Raleigh, North Carolina, and commenced the Ph.D. program in Computer Science at NC State in January 2014. During his studies, he developed a passion for data-driven methods for understanding human sensemaking processes, and for advancing human-machine collaborative intelligence. In his spare time, Paul is a keen aviator and holds both European and American pilot's licenses. He is also co-founder of the 'Wolf Wings' aviation club at NC State.

### HYEONGSIK KIM

**Dissertation:** Semantics-Oriented Optimization Techniques for Large Semantic Network Processing

**Committee Chair:** Kemafor Ogan, Ph.D.

HyeongSik Kim grew up in Yong-In, South Korea, where he received his BS degree in Digital Information Engineering from Hankuk University of Foreign Studies. He moved to Raleigh in Fall 2009 to complete his MS and Ph.D. degrees. His dissertation focused on developing semantic optimization techniques which exploit semantic properties of queries and data for optimizing query processing over large-scale semantic networks.

During his Ph.D. studies, he published dozens of conference and journal papers about optimization techniques for efficiently managing massive knowledge graphs on cloud platforms.

Upon completing his dissertation, HyeongSik Kim will continue working at Lawrence Berkeley National Laboratory where he is a graph database engineer working with life science researchers in numerous research projects, including building and managing various life science ontologies and graph data.

### ADAM CHRISTOPHER MARRS

**Dissertation:** Real-Time GPU Accelerated Multi-View Point-Based Rendering

Committee Co-Chairs: Christopher Healey, Ph.D. and Benjamin Watson, Ph.D.

Adam Marrs grew up in Charlottesville, VA and completed his undergraduate studies at Virginia Polytechnic Institute and State University (Virginia Tech) in 2007.

Adam worked as a Senior Software Developer before beginning his pursuit of computer graphics as a MS student at NC State in 2011. Adam's interest in computers is driven by a love of computer games, digital art, and storytelling in interactive digital worlds.

His dissertation introduces new massively parallel GPU-based algorithms used to accelerate multi-view rendering techniques that approximate complex visual phenomena including soft shadows, reflections, and global illumination. During his time as a doctoral student, Adam completed multiple internships with NVIDIA Research, worked on Call of Duty at Activision, and has published papers at Eurographics and The Journal of Computer Graphics Techniques.

Upon completing his dissertation, Adam accepted a full time position at NVIDIA where he continues to advance the possibilities of real-time graphics and make pretty pixels 16 milliseconds at a time.

### PATRICK JAMES MORRISON

**Dissertation:** A Security Practices Evaluation Framework

**Committee Chair:** Laurie Williams, Ph.D.

Patrick Morrison grew up in Florida, where he obtained a BS degree in Computer Science from the University of Florida. He spent time in a sequence of development jobs for large corporations, and large and small consulting firms, leading to teaching a class in web development at Florida Atlantic University.

Patrick moved to Raleigh, NC to pursue a Ph.D. in Philosophy at NC State. His dissertation work supports researcher and practitioner adoption of security practices through a model for how security practice adherence affects security outcomes and a framework for the collection of software development context factors, practice adherence, and security outcomes.

Patrick was awarded an IBM Ph.D. Fellowship, and began working for IBM during the dissertation.

# TAO QIAN

**Dissertation:** End-to-end Predictability for Distributed Real-Time Systems

**Committee Chair:** Frank Mueller, Ph.D.

Tao Qian grew up in Hangzhou, China, where he obtained his BS and MS degrees in Computer Science from Zhejiang University in China.

Tao moved to Raleigh, NC in 2012 to complete his Ph.D. at NC State. His dissertation developed new real-time communication techniques to improve the predictability for end-to-end response times in distributed real-time systems.

Upon completing his dissertation, Tao Qian will be open to industrial R&D opportunities where he could turn his research capability into business and products.

### JUSTUS ROBERTSON

**Dissertation:** Perceptual Experience Management

**Committee Co-Chairs:** David Roberts, Ph.D. and Michael Young, Ph.D.

Justus Robertson grew up in Washington, North Carolina. In 2005 he moved to Raleigh, NC where he received a BS degree in Computer Science, a BS degree in English, and a MS degree in Computer Science from NC State.

His dissertation allows interactive narrative systems to shift human participants between alternate possible worlds to better meet storytelling objectives. During his Ph.D. studies, Justus published sixteen peer-reviewed papers; presented at five academic conferences; taught college and high school students; released open source software; forged friendships; got married; played video games, ultimate frisbee, basketball, and bar trivia; and had a great time learning and growing as a scholar and as a person.

Justus now works as a Postdoctoral Research Scholar with Arnav Jhala in the Computer Science Department at NC State.

## YANG SONG

**Dissertation:** Data Sharing in Peer-Assessment Systems for Education

**Committee Chair:** Edward Gehringer, Ph.D.

Yang Song grew up in Jilin, China and received his BS and MS degrees in Computer Science from Beijing Institute of Technology and Beijing University of Posts and Telecommunications.

Yang moved to Raleigh, NC, in 2012 as a Ph.D. student at NC State. His research focused on educational data analysis and data mining, especially based on educational peer-assessment data. With his advisor, Dr. Edward F. Gehringer, and fellow researchers, Yang published almost a dozen papers during his Ph.D. studies.

### **MASTER of SCIENCE**

THESIS

#### **Harsh Khetawat**

*Pragma-Based Compiler Extension for End-to-End Resiliency Against Soft Faults* Chair: Frank Mueller, Ph.D.

#### Sarthak Kukreti

*Reducing Hadoop's Long Tail with Process Cloning* Chair: Frank Mueller, Ph.D.

### **MASTER of SCIENCE**

NON-THESIS

Neha Gholkar Jiaming Jiang Andrew Joseph McNamara Robert Sawyer Tyler Aaron Stocksdale

# MASTER of SCIENCE in COMPUTER NETWORKING

THESIS

#### Sudhendu Kumar

*Deployment of Applications in Fog-as-a-Service Environment* Chair: Ioannis Viniotis, Ph.D.

## MASTER of SCIENCE in COMPUTER NETWORKING

NON-THESIS

Mohit Goyal Akarsh Gupta Rajeev Menon Kadekuzhi Atul Kumar Shubham Saloni Nikhil Tayal

### **MASTER of COMPUTER SCIENCE**

Krishna Kumar Agarwala Mahesh Agrawal Palak Agrawal Akshay Arlikatti Ankit Arora Nikhila Balaji Bhavya Bansal Shiv Shankar Barai Amit Abhijit Barve Aditya Bhardwaj Harleen Kaur Bhardwaj Vivek Bhat Rushi Kamalkumar Bhatt Akriti Bilala Katherine Ellen Brey Christine Nicole Brown Karan Chaudhri Di Chen Mo Chen Payal Arun Chheda Vishal Chittoor Jingjuan Deng

Devika Nitesh Desai Saloni N. Desai Bhushan Sharad Deshmukh Dian Ding Deyu Du Michael Ehmke Seth Rylan Gainey Jeremiah Gale Shaurya Garg Amani Gogula Kaustubh Ganesh Gondhalekar Aneesh Gupta Durgesh Kumar Gupta Vinay Gupta Rahul Mahadev Gutal Priyal Jain Samir Jha Swati Ranjan Jhawar Gauray Joshi Omkar Nitin Joshi Sweekrut Suhas Joshi Sneha Kishor Kulkarni

### MASTER of COMPUTER SCIENCE

(continued)

Nithya Kumar Yogesh Vinayak Lele Shijie Li Zhuo Li Abhinand Lingareddy Rui Liu Kai Lu Fuxing Luan Cong Mai Mahesh Madhukar Masale Abhinav Nilesh Medhekar Mihir Milind Mirajkar Raghavendra Nayak Muddur Vishal Murugan Vivek Varma Nadimpalli Sunil Narasimhamurthy Pranav Pravin Nawathe Andreas Kyriacos Orphanides Veenal Kishor Oswal Aditya Pandey Prashant Pandey Christopher Parkinson Sonal Suhas Patil **Toshal Phene** Sindhu Ponnamaneni Raga Ravali Pothireddy Abinav Pothuganti Raghavendra Prasad Potluri Kahan Shailendra Prabhu

Deepak Prashanth Prasannan Balaji Radhakrishnan Venkata Sai Prashanth Rallapalli **Daniel William Rice** Malayaz Sachdeva Shaishav Shah Sanket Vijay Shahane Shriya Sharma Fangyuan Shi Vaibhav Shivaii Shinde Shalki P. Shrivastava Ashima Singh Jalandhar Singh Prashant Mohan Srivastava Yagyesh Srivastava Danish Suri Zubin Samuel Thampi Naren Thanikesh Rachit Thirani Sai Sameer Tirumalasetti Pranav Sandeep Vaidya Sreeram Veluthakkal Sruthi Venkatesh Bapu Yash Hasmukhbhai Vora Amit Sanjay Watve Shanchuan Xia Oiaoxuan Xue Guanxu Yu Bardia Zamanian

### **BACHELOR of SCIENCE**

#### Degree Conferred June 22, 2017

Andrew Joseph Losi John William Sartore

#### Degree Conferred August 1, 2017

John L. Boezeman Matthew C. Hill \*\*\* Matthew Wayne Ledford Yuang Ni Mohamad Abdelhakeem Saleh David Seth Todd

#### Degree to be Conferred December 15th

**Gitesh Agarwal** Manmeet Arora James Baggs Rachel Baker Anusha Balaji \*\* Woodrow Joseph Barlow Arjun Bhatia \* Frank David Brannon III Daniel Clayton Brewer \*\* Sean Joseph Bryant Patrick Stewart Carlson Jacob Thomas Casper \*\* Aaron Zhifeng Chan \* Xiaoyu Chen Kwan Ho Tako Cheung \*\* Dana B. Christo \*\*\*  $\Gamma \sim @$ Guoyang Di \*\*\* Parker Robert Diard \*\* Gregory Blane Edwards \* Giovanni Espinosa Jordan Ayers Eudy \*

William Thomas Fowler \*\* Nicholas Dean Freeman Spatika Ganesh \*\* @ Elizabeth V. Gilbert \*\*\* @ Matthew A. Gorton Daniel Christopher Hackney Alexandra Marie Ham \* Rose Valentina Isadore Christopher Japit Kevin R. Kantesaria \* Aaron Michael Kerr \*\*\* Leonard Witmore Kerr \*\*\* Julius Austin Kollar \*\*\* Jude Nicholas Lacek F Louis Le \*\* @ Sean Michael Mahaffey Devin Edward McDaniel Aaron Neill McGill \*\*\* Ian S. McKinnon Γ Michael A. McNeill Miguel Angel Migliore Ian Patrick Moore \*\*\* Jordan Paul Neal Cameron Edward Nelson \*\* Rodolphe Njiwa Sandjong \*\* Trey R. Olson \* Thomas D. Ortiz \*\* ~ @ Griffin C. Page \* Shyam Sanjay Patel \* + Andrew Mitchell Poe \*\*\* Matthew Wayne Price Sreeharsha Ravuri Robert Joseph Reichel \*\* @ Reginald Richardson Jr.

## **BACHELOR of SCIENCE**

(continued)

Kevin Charles Salvador Γ David Andrew Seybold \* Peter Dafoe Sherk \* Shreeram Lokesh Shorey \*\* + Alexander G. Shorsher \* Jacob Clarence Stone \*\*\* Γ ~ @ Joshua Eugene Thompson Jack Watkins Thornton Christopher Neal Tucker Corey Joseph Valentine May Simei Wang Siyang Wang Tyler J. White Henry Albert Wilson \*\* Stephen Eugene Worley \*\* Yuxu Yang \*\* Tsu-Hsin Yeh \*\*\* + Mingkang Zhuang \*\*

### **Bachelor of Science with Honors**

- \*\*\* Summa cum laude (with highest honor), 3.75—4.0 GPA, gold sash.
- \*\* Magna cum laude (with high honor), 3.5 3.74 GPA, silver sash.
- \* Cum laude (with honor), 3.25 3.499 GPA, white sash.
- Γ Bachelor of Science in CSC with Game Development Concentration.
- + Co-majors (students graduating with one or more degrees outside of Computer Science).
- @ Computer Science Student Ambassador.
- ~ Computer Science Marshal.

# **Computer Science Honors Program**

Recipients of the Bachelor of Science in Computer Science with Honors have maintained a minimum GPA of 3.5 while completing a challenging program of computer science undergraduate study, including an honors thesis with a supervising professor.

#### **Jacob Thomas Casper**

*Applications of Augmented Graph Grammars to Bioinformatics* Honors Advisor: Collin F. Lynch, Ph.D.

#### Dana B. Christo

*Nutra Ninja Research Project* Honors Advisor: Tiffany Barnes, Ph.D.

#### Spatika Ganesh

An Empirical Research of Student Performance When Using Software Engineering Practices Honors Advisor: Sarah Heckman, Ph.D.

#### **Elizabeth V. Gilbert**

*NCSU Location and Event Recommendation System* Honors Advisor: Tiffany Barnes, Ph.D.

#### **Miguel A. Migliore**

*Coding Tutor* Honors Advisor: Tiffany Barnes, Ph.D.

#### Yuang Ni

*Enhancements to the Graph Algorithm Animation Tool* Honors Advisor: Matthias Stallmann, Ph.D.

#### David A. Seybold

*Evaluation of Mental Workload Using Eye Blinks* Honors Advisor: Christopher J. Parnin, Ph.D.

#### Jacob C. Stone

*Nutra Ninja Research Project* Honors Advisor: Tiffany Barnes, Ph.D.

#### Yuxu Yang

*Privacy Incidents Database* Honors Advisor: Jessica Staddon, Ph.D.

#### **University Scholars Program**

The University Scholars Program encourages students to excel academically in their majors while receiving a B.S. degree. The program requires individuals to complete a minimum of 21 hours of honors coursework while maintaining a "B" average, and graduating with an overall GPA of at least a 3.25.

> Dana B. Christo Leonard Witmore Kerr Stephen Eugene Worley

### Valedictorians

(4.0 GPA)

Elizabeth V. Gilbert Matthew C. Hill Aaron Michael Kerr Leonard Witmore Kerr Aaron Neill McGill Jacob Clarence Stone Tsu-Hsin Yeh

#### Marshals

Anastasia Egorova, *junior* Bryan Gonzalez, *junior* Matthew Gray, *junior* Madison Hess, *senior* Caroline Law, *senior* Neill Robson, *sophomore* 

#### **COMPUTER SCIENCE FACULTY**

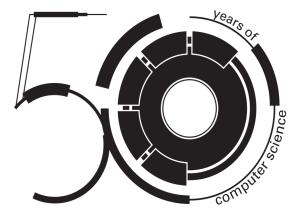
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The North Carolina State University Department of Computer Science celebrates 50 years of excellence in teaching and research this year. Founded in 1967, the department is one of the oldest recognized computer science departments in the nation.

#### **PHOTOGRAPHY / VIDEO**

Photo Specialties, a professional photographer, will take each graduate's picture as they are handed the diploma. A free color proof will be sent to each graduate's current mailing address, including a password for online viewing. There is no obligation to purchase prints. To receive email notification when photos are online, please visit www.photospecialties.com to pre-register. If a proof is not received within a week of the ceremony, please contact info@photospecialties.com or call 1-800-722-7033.

For the benefit of relatives and friends who may not be able to attend the event in person, we are pleased to announce that the event will be available online via **live video streaming at http://go.ncsu.edu/csc-diploma**. Firefox, Internet Explorer, and Safari are recommended for viewing the live streaming of the ceremony.

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# for sponsoring our Fall 2017 diploma ceremony. Their generous support benefits the students, faculty, and staff of the department.

Our sponsors join us in congratulating the Fall 2017 North Carolina State University Computer Science graduates.