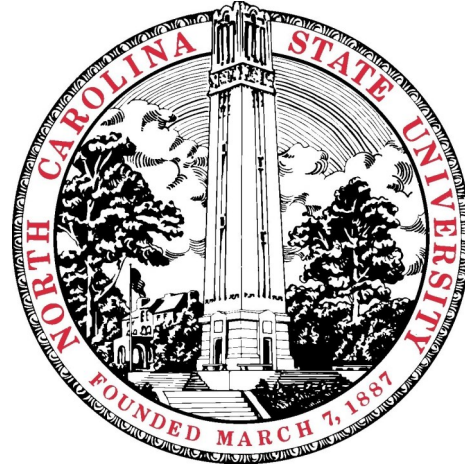# NORTH CAROLINA
# STATE UNIVERSITY

# FALL  DIPLOMA  CEREMONY

## DEPARTMENT of
## COMPUTER SCIENCE

**Thursday, December 15, 2016**
**William Neal Reynolds Coliseum**
**1:00 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 1,600 students.  We are among the top departments 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 2016 graduating students receiving bachelor's, master's, or doctoral degrees in the field of computer science and networking.  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 8,600.*

*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,*

*Mladen A. Vouk*
*Department Head*

# FALL DIPLOMA CEREMONY
**William Neal Reynolds Coliseum**
**Thursday, December 15, 2016**
**1:00 P.M.**

Pre-Processional Comments...............................................................................Ken Tate
*Director of Engagement and External Relations*

Processional...............................................................................Pomp and Circumstance
*Sir Edward Elgar*

Welcome.................................................................................Mladen A. Vouk, Ph.D.
*Department Head*

Speaker ...................................................................................... Dereck Whittenburg
*Associate Athletic Director for Community Relations and Student Support at NC State*

Introduction of Honor Students, Faculty and Staff .................... Dennis R. Bahler, Ph.D.
*Director of Undergraduate Programs*

Presentation of Degrees ........................................................George Rouskas, Ph.D.
*Director of Graduate Programs*

Barbara J. Adams, Ph.D.
*Director of Advising*

Mladen A. Vouk, Ph.D.
*Department Head*

Recessional................................................................................Triumphal March From Aida
*Giuseppe Verdi*

# GUEST  SPEAKER
## Dereck Whittenburg



We are honored to have Dereck Whittenburg, Associate Athletic Director for Community Relations and Student Support at NC State University, serve as our keynote speaker.

Whittenburg, a member of NC State's 1983 national championship men's basketball team, has been in or around basketball for most of his life.  A high school All-America for Morgan Wootten at DeMatha, he was recruited by Norm Sloan to NC State, but became a household name playing under Jim Valvano from 1980 to 1983.  His status as Wolfpack icon and hero was solidified with his last-second shot/pass that Lorenzo Charles slam dunked to help the Wolfpack win the 1983 national championship.  He was drafted in the third round of the 1983 NBA Draft by the Phoenix Suns.

Starting in 1985, Whittenburg spent 30 years in coaching serving in a variety of assistant and head coaching positions.  Most recently, he worked with the Wolfpack men's basketball program as Senior Assistant to the Head Coach/Director of Player Development.

Whittenburg currently serves as NC State's Associate Athletic Director for Community Relations and Student Support, a role he has held since October 2015.  In this role, he develops and promotes programming aimed to benefit current and former student-athletes, while also working to cultivate relationships with local and regional businesses regarding future employment opportunities for Wolfpack graduates.  Additionally, Whittenburg's role includes speaking at and hosting events for the athletic department and other affiliated organizations, as well as supporting on-campus recruiting initiatives for each of the Wolfpack's 23 varsity programs.  Whittenburg also serves as an advocate for former student-athletes to return to NC State to complete their respective degrees, and he serves on NC State's professional sports panel.

In 2015, Whittenburg and his wife, Jacqueline, established the Dereck Whittenburg Foundation for Education to provide need-based scholarship support for students at NC State and Shaw University.  Computer Science student Jorge Ramos Ruiz was among the first four inaugural recipients of scholarships from NC State University.

# 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.

# DOCTOR of PHILOSOPHY

# JULIO  CÉSAR  BAHAMÓN

**Dissertation:** *A Computational Model for the Portrayal of Personality Traits in Planning-Based Narrative Generation*

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

Julio César Bahamón was born in Bogotá, Colombia.  He attended the Computer Science program at Texas A&M University – Kingsville, where he earned a Bachelor of Science in Computer Science.  Upon graduation, he moved to Tallahassee, Florida, where he attended Florida State University and obtained a Master of Science in Computer and Information Sciences.

Before entering the Ph.D. program at NC State in 2009, Julio lived in Jacksonville, Florida, where he worked in the IT industry for several years. Julio's research interests are in the areas of Artificial Intelligence and Serious Games.  His dissertation focused on the development of a computational model for the portrayal of personality traits in Planning-Based Narrative Generation.

After defending his dissertation, Julio joined the Computer Science Department at The University of North Carolina at Charlotte, as a Teaching Assistant Professor.  The focus of his new job is on providing a high-quality education to undergraduate C.S. majors.  When he is not teaching, doing research, or writing code, Julio enjoys spending his time with his family, reading, watching movies, or practicing the sport of triathlon.

# DOCTOR of PHILOSOPHY

# BRIAN  MICHAEL  BOUTERSE

**Dissertation:**  *VM Capacity Planning for Software-as-a-Service Environments*

**Committee Chair:**   Harry Perros, Ph.D.

Brian Bouterse is a North Carolina native, born and raised in Durham, NC. He currently lives in Raleigh with his wife and best friend, Katie.  Brian's favorite activities include cooking, running, juggling, programming, dancing, and playing guitar and piano.   He is also a craft beer connoisseur, a coffee-making aficionado, and a proud cat owner.

Brian holds a Bachelor's degree in Computer Science from 2002, a Master's degree in Computer Networking from 2009, and as of December 2016, a Ph.D. in Computer Science, all from NC State.   Under the direction of Dr. Harry Perros, Brian accomplished his Ph.D. over the past 10 years as a part-time student.   During that time, Brian and Dr. Perros published four IEEE papers, sharing the content through various workshops and conference presentations. In 2012, Brian and Dr. Perros received the Best Paper Award at an IEEE conference.

Brian is a full-time Principal Software Engineer at Red Hat, where he contributes to the Pulp and Kombu open-source software projects.  Prior to joining Red Hat in January 2014, he was a full-time employee at NC State for seven years, working at the Friday Institute, the OSCAR lab, and the James B. Hunt Jr. Library.

Brian is forever grateful to NC State for the personal, educational, and professional growth he has experienced during his time as a student.

# DOCTOR of PHILOSOPHY

# GUOYANG  CHEN

**Dissertation:** *Optimizing Data Placement and Threads Management for Heterogeneous Computing*

**Committee Chair:**  Xipeng Shen, Ph.D.

Guoyang Chen is from Leping, Jiangxi, China.  He received his Bachelor of Engineering degree from University of Science and Technology of China.  He began his Ph.D. studies at The College of William and Mary in 2012, after completing his undergraduate study.  In 2014, to continue working with his advisor, he transferred to NC State to pursue his Ph.D.  He was an IBM Center for Advanced Studies Fellowship recipient from 2014 to 2016 and a recipient of the Cisco Connected-recognition You Accelerate Award in 2015.

Guoyang works on the research topics of compilers, program analysis & optimizations, heterogeneous computing and high-performance computing. During his Ph.D. study, he published 11 papers about high-performance computing and compiler techniques.

Guoyang will start working as a Senior Engineer in Qualcomm Technologies, Inc.  He will continue working on improving the performance of heterogeneous computing.

# DOCTOR of PHILOSOPHY

# LING CHEN

**Dissertation:** *Privacy-Preserving Techniques for Multi-Criteria Queries*

**Committee Co-Chairs:** Ting Yu, Ph.D. and Rada Chirkova, Ph.D.

Ling Chen is from Fujian, China. She received her Master's degree from Nanjing University. She began her Ph.D studies at NC State in 2010.

Ling works on the research area of data privacy and information security. Her dissertation contributes to the research of data privacy for multi-criteria queries by developing privacy-preserving techniques that allow data holders to perform multi-criteria queries without compromising individuals' privacy. She has published three papers in this research area.

Currently, Ling lives in Princeton, NJ, with her husband.

# DOCTOR of PHILOSOPHY

# SEUNG  EUN  CHUNG

**Dissertation:** *Designing Practical Mobile Interaction Interfaces through Mobile Sensing*

**Committee Co-Chairs:**   Injong Rhee, Ph.D. and Mladen Vouk, Ph.D.

Seung Eun Chung is from Busan, Korea.  She received a Bachelor's degree in Computer Science and a Master's degree in Electrical Engineering and Computer Science, both from Seoul National University, in Seoul, Korea, in 2007 and 2009, respectively.

Since August 2010, she has pursued her Ph.D. degree in Computer Science at NC State, in Raleigh, NC.  Her research interests include practical design and implementation of ubiquitous and wireless sensing systems for mobile interaction.

# DOCTOR of PHILOSOPHY

# BRIAN  JACOB  DELLINGER

**Dissertation:** *Mechanical Equivalents to Hybrid Automata*

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

Brian Dellinger was born in High Point, NC.  He attended Grove City College for his undergraduate work, graduating with a B.S. degree in Computer Science in 2007.

After completing his undergraduate work, Brian returned to North Carolina, studying at NC State to complete his M.S. degree and Ph.D. degree in Computer Science. His thesis proves that certain forms of control systems that are traditionally described as automata can also be represented as purely mechanical systems, as part of a broader field of exploring mechanics-based cognition.   In 2009, he was honored as one of the Top Ten Teaching Assistants at NC State.  While completing his studies, Brian co-authored a paper on the implications of alternative mechanical descriptions with his advisor, Dr. Jon Doyle.

In 2013, Brian and his wife, Allison, returned to Grove City, PA, this time as an Assistant Professor of Computer Science at Grove City College.   There, he teaches a variety of courses and oversees student research in neural nets and automated waypoint generation.

# DOCTOR of PHILOSOPHY

# ADEL MAGDI ElMESSIRY

**Dissertation:** *Natural Language Techniques for Decision Support Based on Patient Complaints*

**Committee Chair:** Munindar Singh, Ph.D.

Adel ElMessiry grew up in Alexandria, Egypt, where two of the seven wonders of the world were located (the library and the lighthouse). Following in his family's tradition, he earned his Bachelor's degree in Electric and Electronics Engineering from Alexandria University, where his father is a tenured professor. Driven by the quest for knowledge, he continued his graduate study at NC State where he earned his Master's degree in Computer Engineering in 1998.

Adel started his career at Synquest, a local Raleigh startup, to improve the state of the health care industry through advancing massive online health care education systems. Adel moved to Nashville after HealthStream acquired Synquest. Later, he co-founded InVivoLink, a healthcare technology innovation leader, which was acquired by HealthTrust in 2014.

Adel stepped down as the CTO of InVivoLink to focus on his dissertation "Natural Language Techniques for Decision Support Based on Patient Complaints" under the supervision of Dr. Munindar Singh.

Adel is currently serving as both the CTO of UtilizeHealth and the founder of HealthReasoning.

# DOCTOR of PHILOSOPHY

# DOEL  LUIS  GONZALEZ  II

**Dissertation:** *Data-driven Inference of Modulatory Relationship Networks and Quantitative System Feedback Prediction*

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


Doel grew up in Bayamon, Puerto Rico, where he obtained his Bachelor's degree in Computer Engineering at the University of Puerto Rico at Mayaguez in 2008.  Doel moved to Raleigh, NC, in pursuit of an opportunity at IBM, during which he began his Master's degree in Computer Science at NC State in 2010. During this time, Doel met Dr. Nagiza Samatova, who convinced him to transfer to the Ph.D. program.

His dissertation developed new data mining methodologies that leverage large climate datasets to study interconnected relationships in climate subsystems and their effect on the overall climate system responses.  During his Ph.D. studies, Doel changed companies to a development firm named PointSource, still in Raleigh, but never stopped working his day job during the course of his degree.

Upon completing his dissertation, Doel will continue working at PointSource, where he is a Senior Software Engineer working with clients in numerous software development tasks, including improving the user experience with understanding data presentation within applications.

# DOCTOR of PHILOSOPHY

# ANUP  KUMAR  KALIA

**Dissertation:** *Understanding Human Communication to Estimate Trust, Hierarchy, and Performance*

**Committee Chair:**    Munindar Singh, Ph.D.

Anup Kalia grew up in Roukela, a town in the state of Odisha, India.  He received his Bachelor's degree in Computer Science and Engineering from the College of Engineering and Technology, in Bhubaneswar, India in 2008.  After working for a couple of years in India, he joined the Master's program in Computer Science at NC State in 2010.  Later, in 2012, he joined the Ph.D. program under the supervision of Dr. Munindar Singh.

Anup's research focuses on understanding human communication and building formal and computational models to infer trust, hierarchy, and team performance.  Anup's contribution is interdisciplinary where he constructs models using the concepts from multiagent system and applies them to service computing, computational social science, and software engineering.  During his Ph.D., Anup published five journal articles, nine conference papers, and one patent.  His papers were published in top venues such as PLoS One, JAAMAS, IEEE Internet Computing, ICSOC, IEEE ICWS, IEEE RE, SocInfo, and IEEE SCC. In 2015, Anup's contribution toward advancing the formal models of commitments in service engagements received the Best Paper Award at ICSOC, his Master's thesis received the sole nomination from NC State toward the CSGS best Master's thesis award across all the science and engineering department, and he was awarded US ARL ORISE Fellowship.

Anup interned at several places including HP Labs, Palo, CA (2012); Wodini Inc., Los Altos, CA (2013); and US ARL (2015).  Anup is currently working at IBM T. J. Watson, Yorktown Heights, NY, as a Research Staff Member in Cloud Services Automation and Analytics team.

# DOCTOR of PHILOSOPHY

# DONGHOON  KIM

**Dissertation:** *Securing Data Flows within Software Application Networks in Cloud Environments*

**Committee Chair:**   Mladen Vouk, Ph.D.


Donghoon Kim is from South Korea.  He received his Bachelor of Science degree from Gangneung National University, in South Korea and his Master of Science degree from Auburn University, in Alabama.  After that, he worked at Samsung Electronics for several years before he started his Ph.D. studies at NC State in 2007.

In his dissertation, he proposed a model of cloud computing security and implemented a prototype in Kepler scientific workflow management system. While completing his Ph.D., he published more than nine papers about cloud security, software engineering, and system area.  Also, he has worked at SAS Institute and IBM as an intern.

Donghoon Kim is currently an Assistant Professor in the Department of Computer Science at Arkansas State University.

# DOCTOR of PHILOSOPHY

# SHEA  STIRLING  McINTEE

**Dissertation:** *A Task Model of Free-Space Movement-Based Gestures*

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

Shea McIntee grew up in Chapel Hill, NC, where he attended East Chapel Hill High School and Durham Technical Community College, before moving to Boone, NC, to complete his B.S. degree in Computer Science from Appalachian State University.

Shea was invited to attend the M.S. program at NC State in 2006, in which he spent three years before transferring to the Ph.D. program.  While working as a teaching assistant, his dissertation developed a task model for free-space movement-based gestures, expanding existing human performance modeling capabilities.

After completing his dissertation, Shea plans to spend time working as a Software Engineer and continue to research topics in the area of human modeling and human-computer interactions.

# DOCTOR of PHILOSOPHY

# WOOKHEE MIN

**Dissertation:** *Generalized Goal Recognition Framework for Open-World Digital Games*

**Committee Chair:** James Lester, Ph.D.

Wookhee Min grew up in Seoul, South Korea, where he obtained his B.S. degree in Computer Science from Yonsei University.

Wookhee moved to Raleigh in 2011 to pursue his Ph.D. at NC State. His dissertation developed a generalized goal recognition framework that effectively models sequential patterns and cyclical relationships that pervade player behaviors in open-world digital games. During his Ph.D. studies, Wookhee published 15 peer-reviewed publications and achieved the second place in an international competition for text normalization held by the Association for Computational Linguistics in 2015.

Upon completing his dissertation, Wookhee accepted a post-doc position with the Center for Educational Informatics at NC State, where he is investigating computational challenges in user modeling, through which he aims to create highly adaptive educational games.

# DOCTOR of PHILOSOPHY

# BEHROOZ ZAKARIA MOSTAFAVI

**Dissertation:** *Improving Individualized Instruction in a Logic Tutor Using Data-driven Methods*

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

Behrooz Mostafavi grew up in Charlotte, NC, where he received his B.S. and M.S. degrees in Computer Science from the University of North Carolina at Charlotte.

Behrooz moved to Raleigh in 2012 to complete his Ph.D. at NC State. His dissertation developed new data-driven techniques for improving individualized education and resulted in a fully data-driven tutor for propositional logic. During his Ph.D. studies, he published a journal article and over a dozen papers about data-driven tutoring.

Behrooz will begin postdoctoral studies at NC State, continuing to improve education with computer science. Behrooz currently lives in Cary, NC.

# DOCTOR of PHILOSOPHY

## PRADEEP  KUMAR  MURUKANNAIAH

**Dissertation:** *Engineering Personal Agents: Toward Personalized, Context-Aware, and Privacy-Preserving Applications*

**Committee Chair:**    Munindar Singh, Ph.D.

Pradeep Murukannaiah grew up in Manne, a village near Bangalore, India.  He received a Bachelor of Engineering degree from the University of Visvesvaraya, College of Engineering, Bangalore.

Pradeep moved to Raleigh in 2008 to pursue an M.S. degree, and subsequently a Ph.D. degree in Computer Science.  His dissertation focuses on engineering personal agents to deliver a personalized context-aware, and privacy-preserving experience for their human users.  During his Ph.D. studies, he interned with Google, Inc.  Pradeep received the 2016 Outstanding Research Award by the Department of Computer Science at NC State.

Upon completing his dissertation, Pradeep started as a Postdoctoral Research Scientist at Rochester Institute of Technology, funded by the Dean's Postdoctoral Fellowship.  He currently lives in Rochester, New York.

# DOCTOR of PHILOSOPHY

# MAGRETH JUBILATE MUSHI

**Dissertation:** *Factoring Human Workflow in Network Reliability Engineering*

**Committee Chair:** Rudra Dutta, Ph.D.

Magreth Mushi is from Dar es Salaam, Tanzania. She received her B.S and M.S. degrees in Computer Science from the University of Dar es Salaam.

Magreth moved to Raleigh in 2012 to pursue her Ph.D at NC State after spending seven years in the workforce. Magreth's dissertation developed a new paradigm to improve network infrastructure resilience by isolating human induced misconfigurations in the network. During her Ph.D. studies, she published two papers and submitted two others for publication.

After completing her Ph.D., Magreth resumed her faculty position at the Open University of Tanzania.

# DOCTOR of PHILOSOPHY

# MARIA  RIAZ

**Dissertation:** *Inferring Security Requirements from Natural Language Requirements Artifacts*

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

Maria grew up in Pakistan, where she obtained her Bachelor's degree in Software Engineering from the National University of Sciences and Technology (NUST), summa cum laude.  She received her Master's degree in Computer Engineering from Kyung Hee University in South Korea.

Maria moved to the US to pursue a Ph.D. from NC State in 2011.  She is a Schlumberger Faculty for the Future Fellow.  Maria's dissertation focused on supporting secure software development by systematically identifying security requirements of a software system.  During her Ph.D., Maria interned at Google, Inc. twice, as part of the counter-abuse team.

She has joined Google, Inc. full time and works on developing methodologies for detecting and mitigating attacks on the Google cloud platform. She currently lives in California with her family, including her two little boys.

# DOCTOR of PHILOSOPHY

# HUSEYIN  SENCAN

**Dissertation:** *(Dis)Similarity-based Classification of Cross Domain Multivariate Spatiotemporal Systems Using Dynamic Network Structures and Graph Edit Distances*

**Committee Co-Chairs:**   Robert St. Amant, Ph.D. and Chang Nam, Ph.D.

Huseyin Sencan is from Istanbul, Turkey.  He received his Bachelor's degree from Bogazici University and completed his Master's degree at Marmara University.

He moved to Raleigh in 2009, and started his Ph.D. at NC State.  During his Ph.D., he worked as a research assistant on various research projects focused on data mining, machine learning, and human-computer interaction areas.  He wrote his dissertation on spatiotemporal data analysis and network-based classification techniques.

Upon completing his dissertation, he accepted a Machine Learning Software Engineer job at LexisNexis, where he works on improving search capabilities of commercial search engines.

# DOCTOR of PHILOSOPHY

# HOUJUN  TANG

**Dissertation:**  *Dynamic Data Prefetching and Layout Optimizations for High Performance Heterogeneous Data Access*

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

Houjun Tang is from Tieling, China.  He began his Ph.D. studies at NC State in 2012, after the completion of his Bachelor's degree from Shenzhen University, China.

Houjun worked on the research topic of parallel I/O in high-performance computing in his Ph.D. studies.  More specifically, he focused on improving data read performance for various scientific applications.

Houjun will start working as a Postdoctoral Researcher at the Lawrence Berkeley National Laboratory.  He will continue to work in the area of high-performance computing and data management.

# DOCTOR of PHILOSOPHY

# XIAOCHENG  ZOU

**Dissertation:** *Enabling Efficient Scientific Analytics over Extreme-scale Adaptive Mesh Refinement Data through Effective In Situ Indexing*

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

Xiaocheng Zou is from China.  He received his Bachelor's degree from Nanjing University of Post and Telecommunications and his Master's degree from the University of North Carolina at Greensboro.  He began his Ph.D. studies at NC State in 2011.

Xiaocheng works on the research of large-scale scientific data management and analytics.  More specifically, he focuses on scalable, parallel and efficient indexing for large-scale scientific exploration and discovery.  During his Ph.D. studies, he published 13 publications.  Among them, there are one best paper and three first-author papers.

Xiaocheng will start working as a Software Developer at Amazon AWS.  He will continue working on large-scale data processing and management.

# MASTER of SCIENCE
## THESIS

**Richa Budhiraja**
*Supporting Position Independence in NVM and Porting New and Legacy C Code to NVM*
Chair:  Xipeng Shen, Ph.D.

**Lakshman Naresh Coimbatore Annadorai**
*A Just-In-Time Compiler for Intelligent Manufacturing*
Chair:  Xipeng Shen, Ph.D.

**Pallavi Sumant Deo**
*DataSlicer: A Recommendation System for Visual Data Exploration*
Co-Chairs:  Christopher Healey, Ph.D. and Rada Chirkova, Ph.D.

**Nupur Mallik**
*Classification and Visualization of Wildfire Tweets*
Co-Chairs:  Robert St. Amant, Ph.D. and Rada Chirkova, Ph.D.

**Sahibi Miranshah**
*Integrating a Path Operator in Apache Jena for Generalized Graph Pattern Matching*
Chair:  Kemafor Ogan, Ph.D.

**Shanil Puri**
*History Reuse Architecture: Reuse of Historical Computations across Iterations of a Converging Algorithm*
Chair:  Xipeng Shen, Ph.D.

**Adithya Seshadri**
*Sessions Analysis: Mining Online Tool Use to Predict the Performance in Blended Courses*
Chair:  Collin Lynch, Ph.D.

***Abhinav Srinivasan***
*Adaptive Frameless Rendering*
Chair:  Benjamin Watson, Ph.D.

# MASTER of SCIENCE
NON-THESIS

Farid Alborzi
Amir Hassan Bahmani
Denae Mignon Ford
Michael C. Grace
Zhongxiu Liu
Robinson Udechukwu

# MASTER of SCIENCE in
# COMPUTER NETWORKING
NON-THESIS

Swagat Bora
Vivekanand Murali Ette
Neng Jiang
Balaji Shekar
Aishwarya Sreenivasan
Vivek Subbarao
Neela Krishna Teja Tadikonda

# MASTER of COMPUTER SCIENCE

Akash Agrawal
Rohit Kishore Ahuja
Bhanu Anand
Venkata Siva Teja Areti
Srishti Arora
Kunal Bhandari
Isha Bobra
Himangshu Ranjan Borah
Akshay Kumar Chaluvadi
Ravishankar Chandhiramoorthi
Anand Varma Chekuri
Jianbin Chen
Zhiping Chen
Tarun Chhabra

Sanket Chinchalkar
Manisha Reddy Chinthapally
Debalin Das
Joseph Decker
Pranjal Deka
Kevin Desai
Paritosh Uday Desai
Michael Wade Gabriel
Krunal Dhanji Gala
Zlati Minchev Gardev
Nishtha Garg
Michelle Lucier Glatz
Ankit Gohil
Diksha Gohlyan

# MASTER of COMPUTER SCIENCE
*(continued)*

Vivek Gopalakrishnan
Christine Grassi
Mahendra Ganapati Hegde
Eric D. Helms
Shifali Jain
Gautam Jeyaraman
Jordy Jose
Chirag Divyakant Kapadia
Kunal Kapoor
Arjun Karat
Vicky Prem Katara
Shashwath Kumar
Abhinandan Kelgere Ramesh
Harini Reddy Kumbum
Sai Sri Harsha Kunapareddy
Ashwin Bharadwaj
Da Young Lee
Abhishek Satyander Lingwal
Rohit Naresh Mandge
Anbarasi Manoharan
Glen Ashwin Menezes
Anindita Mozumder
Vishal Surendra Mujumdar
Avimanyu Mukhopadhyay
Rama Dheeraj Nagaruru
Revanth Reddy Nagilla
Vikas Narayanappa
Akshay Vasant Nayak
Karthik Perumal Palaniappan
Akash Pandey
Anvesh Reddy Patlolla
Krishna Pokharel
Priysha Pradhan
Priyanka Sunil Puranik
Anand Raghavendran Purohit

Nikhil Raina
Chethan Rajkumar
Sreekanth Ramakrishnan
Mathioli Ramalingam
Nikhil Ramesh
Gowtham Durairaj Ramesh Kumar
Akhil Raghavendra Rao
Viswa Teja Ravi
Sandeep Samdaria
Chekad Sarami
Akshat Amit Shah
Rajat Shah
Jigar Sharda
Arjun Datt Sharma
Namit Sharma
Sameer Sharma
Samrudhi Sharma
Shivani Sharma
Sukriti Sharma
Vipin Sharma
Nitish Shivrayan
Raman Preet Singh
Darshan Soni
Shubham Srivastav
Chidambara Bharathi Angamuthu
Sridhar Narayana Swamy
Thanh Lam Thai
Arjun Thimmareddy
Anish Gheevarghese Thomas
Gregory Benson Timmons
Arpit Tyagi
Dharmendrasinh Vaghela
Pragati Verma
Utkarsh Verma
Krishna Prajeeth Vysyaraju

# BACHELOR of SCIENCE

**_Degree Conferred June 21st_**

Matthew David Butler
Qiufeng Yu *

**_Degree Conferred July 29th_**

Robert Louis Benson
Stephen Aaron Brinson
Seth Heno
Hunter L. Sipe

**_Degree to be Conferred December 16th_**

Veronica Alban
Daniel Robert Alley *
Woodrow Joseph Barlow ~
Katherine Ellen Brey ***
Andrew J. Buckley
Fanmao Chen
Evin Foster Clapper
Brantley Jayson Collins * Γ
Jacob E. Crosmer *** Γ
Van Truong Duong
William Bryant Eason *
Curt J. Ecott
Michael Ehmke **
Kyle Robert Ferriter **
Brandon Christopher Fightmaster *
Jordan Lorencz Furgeson * Γ
William Hayden Fuss ***
Anna Catherine Gass @
Brent C. Gaulin
Kenneth Depreice Glenn Jr.
William Edward Hammond * Γ
Kenny C. Huang *** Γ
Colleen Marie Hutson *
Teylor Michael Jenkins **
Maxwell Lucas Johnson

Grayson Caldwell Jones
Brendan Riley Kelley @ ~
Michael James Kingdon  Γ
Joseph George Kuttickal
Scott Evan Lachapelle
Jesse Paul Lafuenti
Blake A. Lassiter
Matthew Wayne Ledford
Bennett Barnes Lynch *** Γ
Keith Alan MacKay
Gregory David Manning
Joshua Philip Mathew
Christian Todd McCurdy
Alec James McDivitt
Dennis Nyaribo Nduko
Joanna B. Pollard
Michael D. Pollock
Patrick O'Brien Powell
Kevin Andrew Price
Andrew S. Rather **
Mark Charles Reed ***
Raphael Ben Scott **
Zwick A. Shaw
Bridget Renee Sherwood  Γ
Gabriel Cole Simerson  Γ
Rupert Ripley Sizemore
Carl Khakee Smith
Glenn Brockwell Snowden
Dylan J. Stein
Ethan P. Swartzentruber ***
Mahmoud Tohmaz
Mark Wesley Toler *
Ryan Lee Upham **
Duy Thanh Vu
Benjamin Ross Wingo

# 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.

@ - 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.

**William Bryant Eason**
*Football Analytics*
Honors advisor:  Vincent W. Freeh, Ph.D.

# Valedictorians
(4.0 GPA)

Katherine Ellen Brey

# Marshals

Dana Christo, *senior*
Mark DeMaria, *senior*
Alisse Harkins, *senior*
Veeha Khanna, *senior*
Bryce Pilcher, *MS student*
Erin Snider, *senior*
Jacob Stone, *senior*

# COMPUTER SCIENCE FACULTY

Barbara J. Adams, Ph.D.
Kemafor Anyanwu Ogan, Ph.D.
Dennis R. Bahler, Ph.D.
Suzanne Balik, Ph.D.
Tiffany Barnes, Ph.D.
Tzvetelina Battestilli, Ph.D.
Donald L. Bitzer, Ph.D.
Franc Brglez, Ph.D.
Min Chi, Ph.D.
Rada Y. Chirkova, Ph.D.
Jon Doyle, Ph.D.
Patrick Dreher, Ph.D., M.B.A.
Rudra Dutta, Ph.D.
William Enck, Ph.D.
Vincent W. Freeh, Ph.D.
Edward F. Gehringer, Ph.D.
Xiaohui (Helen) Gu, Ph.D.
Khaled Harfoush, Ph.D.
Christopher G. Healey, Ph.D.
Steffen Heber, Ph.D.
Sarah S. Heckman, Ph.D.
Margaret R. Heil, M.S.
Arnav Jhala, Ph.D.
Guoliang Jin, Ph.D.
Alexandros Kapravelos, Ph.D.
Jason King, Ph.D.
Michael Kowolenko, Ph.D.
Dana Lasher, B.S.
James C. Lester, Ph.D.
Collin Lynch, Ph.D.
Toni Ann Marini, M.Ed.
Chris Martens, Ph.D.

Timothy Menzies, Ph.D.
Frank Mueller, Ph.D.
Emerson Murphy-Hill, Ph.D.
Christopher Parnin, Ph.D.
Harry Perros, Ph.D.
Michael Rappa, Ph.D.
Douglas S. Reeves, Ph.D.
David L. Roberts, Ph.D.
Robert D. Rodman, Ph.D.
George N. Rouskas, Ph.D.
Nagiza Samatova, Ph.D.
Carla D. Savage, Ph.D.
Alessandra Scafuro, Ph.D.
Jessica Schmidt, Ph.D.
Muhammad Shahzad, Ph.D.
Xipeng Shen, Ph.D.
Munindar P. Singh, Ph.D.
Robert St. Amant, Ph.D.
Jessica Staddon, Ph.D.
Matthias Stallmann, Ph.D.
William J. Stewart, Ph.D.
Kathryn T. Stolee, Ph.D.
John Streck, M.S.
David Sturgill, Ph.D.
Blair D. Sullivan, Ph.D.
David J. Thuente, Ph.D.
Hung-Wei Tseng, Ph.D.
Raju Vatsavai, Ph.D.
Mladen A. Vouk, Ph.D.
Benjamin Watson, Ph.D.
Laurie Williams, Ph.D.

# COMPUTER SCIENCE STAFF

Carol Allen
John Bass, M.S.
Carlos A. Benavente, M.S.
Jami Boylan
Andrew Brown, M.S.
Marcus Bullett, B.S.
Tammy Coates, B.A.
Camille Cox, B.S.
Kirby Culbertson, M.S.
Jeanette DiScala, Ph.D.
FNU Ferry, Ph.D.
Megan Hardy Frankosky, M.S.
Marhn Fullmer, B.S.
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Christopher Gurley, B.S.
James Hall, M.S.
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Linda Honeycutt
Ann Hunt, M.S.

Meaghan Johnson, B.S.
Ryan Kilby
Darla Kremer, Ph.D.
Brianna Lofton, B.S.
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Terri Martin-Moss
Bradford Mott, Ph.D.
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Tyler Puckett, B.S.
Leslie Rand-Pickett, M.Ed.
Donna Richards, B.A.
Jonathan Rowe, Ph.D.
Andrew Sleeth, B.A.
Kenneth Tate, B.A.
Robert Taylor, M.S.
Zelda Tuazama, B.S.
Gary Weinberg, Ed.D.
Lauren Williamson, B.S.
David Wright, Ph.D.

## PHOTOGRAPHY / VIDEO

Photo Specialties, a professional photographer, will take each graduate's picture as they are handed his/her 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.

Additionally, **DVDs of the ceremony** are available for a nominal $25 processing fee. Order forms are available in this program, or you may contact Tammy Coates at tscoates@ncsu.edu  for more information.

**The Department of Computer Science thanks**

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**for sponsoring our Fall 2016
diploma ceremony.  Their generous
support benefits the students, faculty,
and staff of the department.**

**Our sponsors join us in congratulating the
Fall 2016 North Carolina State University
Computer Science graduates.**