NORTH CAROLINA STATE UNIVERSITY

FALL DIPLOMA CEREMONY

DEPARTMENT of COMPUTER SCIENCE

Friday, December 16, 2022

James T. Valvano Arena at William Neal Reynolds Coliseum

3:00 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 2,500 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 2022 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 10,500.

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,

Gregg Rothermel
Department Head

FALL DIPLOMA CEREMONY

James T. Valvano Arena at William Neal Reynolds Coliseum
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Pre-Processional Comments...Ken Tate
Director of Engagement and External Relations

Processional...Pomp and Circumstance
Sir Edward Elgar

Welcome...Gregg Rothermel, Ph.D.
Department Head

Speaker ....Lance Berberian
Executive Vice President and Chief Information and Technology Officer
Labcorp

Introduction of Honor Students.....................................Barbara Jasmine Adams, Ph.D.
Director of Undergraduate Advising

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

Sarah Heckman, Ph.D.
Director of Undergraduate Programs

Gregg Rothermel, Ph.D.
Department Head

Recessional...Triumphal March From Aida
Giuseppe Verdi

GUEST SPEAKER
Lance Berberian, Executive Vice President and Chief Information and Technology Officer, Labcorp

Lance Berberian has served as Executive Vice President and Chief Information and Technology Officer of Labcorp since 2014.

Prior to joining Labcorp, Lance served as the Chief Information Officer at IDEXX Laboratories, Inc., a global leader in diagnostics and IT solutions for animal health and food and water quality. He also worked as Chief Information Officer and President of Kellstrom Defense Aerospace, Inc., a fully integrated supply chain firm, from 2000 to 2007. Prior to that, Lance was the Chief Information Officer of Interim HealthCare, Inc.

Lance serves as Chair of the Strategic Advisory Board for North Carolina State University's Department of Computer Science and an Advisory Board member for the University of North Carolina at Greensboro's Master of Science in Informatics and Analytics, as well as the Carolina Health Informatics Program at the University of North Carolina at Chapel Hill. He also serves on the Board of Trustees for Elon University.

Lance holds a B.S. degree in both Business Administration and Information Technology from Thomas Edison State College.

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

JING AO

Dissertation: *Temporal Knowledge Graphs: Integrations, Querying, and Analytics*

Committee Chair: Rada Chirkova, Ph.D.

Jing Ao was born and raised in Beijing, China. She earned her B.S. and M.S. degrees in Computer Science from Beijing University of Technology in 2013 and 2017.

From 2017 to 2022, Jing pursued her Ph.D. degree in Computer Science at N.C. State in Raleigh, NC, under the supervision of Dr. Rada Chirkova. Her research interests focused on data management and data science over knowledge graphs.

Upon completion of her Ph.D., Jing joined Microsoft in Washington as a Data Scientist to continue contributing her knowledge and expertise in addressing data-intensive problems and benefiting real-life customers.

DOCTOR of PHILOSOPHY

GINA BAI

Dissertation: *Improving Student Testing Practices through a Lightweight Checklist Intervention*

Committee Chair: Kathryn Stolee, Ph.D.

Gina Bai grew up in Zhejiang, China. She earned her B.S. degree in Computer Science from Wake Forest University in 2016. During the same year, she started pursuing her Ph.D. degree in Computer Science at N.C. State, under the supervision of Dr. Kathryn Stolee.

Her research focused on understanding and addressing the barriers that students have during software development, in particular software testing. She also gained her interest in teaching and received a great amount of guidance on effective teaching while at N.C. State.

Upon completion of her Ph.D., Gina joined Vanderbilt University as an Assistant Professor of the Practice.

Outside of work, she enjoys cooking, reading, photography, and doing jigsaw puzzles.

DOCTOR of PHILOSOPHY

WILLIAM BROCKELSBY

Dissertation: *Hybrid SDN Campus Architectures for Agility and Enhanced Cybersecurity*

Committee Chair: Rudra Dutta, Ph.D.

William was born in Tucson, Arizona and moved to North Carolina to be closer to his family. After graduating from high school, he attended N.C. State and obtained his B.S. and MCS degrees in Computer Science. During this time, William transitioned from part-time to full-time university employee, ultimately serving as Senior IT Architect for N.C. State's Office of Information Technology (OIT).

As an IT Architect, William worked closely with Dr. Rudra Dutta and other researchers within Computer Science to collaboratively develop a National Science Foundation grant proposal, which was awarded, to introduce software-defined networking within a portion of the production network at N.C. State in support of the efficient transfer of research data. As a part of this process, William decided to pursue his Ph.D. in Computer Science at N.C. State, under the supervision of Dr. Dutta.

William's research focused on developing a hybrid architecture supporting a mix of traditional and software-defined networking components within the campus context along multiple dimensions in support of agility and enhanced cybersecurity. An additional NSF grant has funded a pilot deployment of this architecture and some components are in place at Duke University, N.C. State, and other locations within the Triangle.

Upon completion of his Ph.D., William will continue his role as the Chief Network Architect for Duke University and Duke University Health System, where he provides technical leadership for Duke's campus, the DKU campus in China, three hospitals, and numerous clinics across the state. In this capacity, he will continue to conduct research and apply research results in support of diverse production, research, and medical use cases.

DOCTOR of PHILOSOPHY

ALEXANDER CARD

Dissertation: *Scaffolding Player-Experience-Centered Game Design and Novice Programmers*

Committee Chair: Chris Martens, Ph.D.

Alexander Card received his B.S. degrees in both Mathematics and Computer Science and a M.S. degree in Mathematics from the University of Central Missouri. After receiving his M.S., he taught Mathematics courses at his Alma Mater before receiving his Ph.D. in Computer Science from N.C. State. Presently, Alexander studies the struggles novice game designers face in their coursework and investigates methods which can be used to facilitate learning and communication in the classroom.

Alexander's research interests are in Computer Science and Game Design education, especially in project-based courses featuring design work, as well as procedural content generation.

Upon completion of his Ph.D., Alexander began working at N.C. State as an Assistant Teaching Professor in the Computer Science Department.

DOCTOR of PHILOSOPHY

SAMUEL CHRISTIE V

Dissertation: *Information-Based Decentralized Systems*

Committee Chair: Munindar Singh, Ph.D.

Samuel H. Christie V grew up in Cary, NC and was homeschooled from 3rd grade through high school. He began taking classes at N.C. State through dual enrollment, and completed his B.S. degrees in Mathematics and Computer Science in 2012.

After briefly contracting as a developer, he started his Ph.D. at N.C. State in Computer Science in the Fall of 2013. He worked with the Lab for Analytic Sciences on recommender systems and analytic workflow tools, then part-time for IBM in their block chain division.

In 2019, he worked as a Research Associate with Lancaster University in England, focusing more on his research in multi-agent systems and information protocols. In 2022, he completed his Ph.D., under the supervision of Dr. Munindar Singh.

He currently lives on a sailboat with his brother, and he looks forward to engaging remotely in software entrepreneurship and the development of decentralized software systems.

DOCTOR of PHILOSOPHY

KIRK GARDNER

Dissertation: *Verified Topological Data Analysis and a Theory of Sub-Barcodes*

Committee Chair: Donald Sheehy, Ph.D.

Kirk Patrick Gardner grew up in Brookfield, Connecticut and received his B.S. degree in Computer Science from the University of Connecticut in 2015. He began his graduate career at UConn, where he collaborated with the Air Force Research Labs and IBM on problems in applied computational geometry and topology.

After four years at UConn, he transferred to N.C. State to complete his Ph.D. studies. His research focused on Topological Data Analysis and the categorification of persistence.

In addition to his research, he enjoys music production, art, and his cat Lola. Upon graduation, he will be moving to Seattle, Washington to live with his partner, while continuing work with the Air Force Labs.

DOCTOR of PHILOSOPHY

ADAM GAWEDA

Dissertation: *Encouraging Student Practice using Nudge Theory Recommendations during Study and Struggle*

Committee Chair: Collin Lynch, Ph.D.

Adam Gaweda is originally from Fayetteville, NC. His current research focuses on Computer Science Education, where he is looking into novel techniques for teaching computer science topics.

Adam holds a B.S. degree in Computer Science and a B.A. in Theater. In addition, he holds a M.S. degree in Computer Science and Information Systems from UNC-Wilmington, where his primary research focus was in facial and gesture recognition.

Prior to attending N.C. State, Adam was a Lecturer at UNC-Wilmington and Lead Software Development Instructor for Cape Fear Community College.

After he completed his dissertation, Adam joined the Computer Science Department at N.C. State, where he hopes to continue improving his own teaching and students' learning.

Outside of academia, Adam has been training in martial arts for twelve years (he has a second-degree Black Belt in Aikido and a Purple Belt in Brazilian Jiu-Jitsu). He has also been hit by a truck.

DOCTOR of PHILOSOPHY

ERIC HORTON

Dissertation: *Automatic Inference of Computing Environments*

Committee Chair: Christopher Parnin, Ph.D.

Eric William Horton received his B.S. degree in May of 2017, his M.S. degree in May of 2018, and his Ph.D. degree in August of 2022, all of which were from the Computer Science Department at N.C. State.

Eric's dissertation is titled, "Automatic Inference of Computing Environments", under the supervision of Dr. Christopher Parnin.

Eric would like to thank Dr. Chris Parnin for his support and advice, along with his other advisors, Dr. John-Paul Ore, Dr. Brad Reaves, Dr. Katie Stolee, and Dr. Blair Sullivan.

Additional thanks go to the rest of the Alt-Code lab who made efforts to support and help one another while working from home during the middle of a pandemic.

DOCTOR of PHILOSOPHY

YEO JIN KIM

Dissertation: *Time-Aware Deep Reinforcement Learning with Multi-Temporal Abstraction*

Committee Chair: Min Chi, Ph.D.

Yeo Jin Kim grew up in Seoul, South Korea, and received her B.S. degree in Computer Science from Yonsei University in 2002 and her M.S. degree in Computer Science from Yonsei University in 2005.

After working at Samsung Advanced Institute of Technology, Yeo Jin moved with her family to Raleigh, NC in 2011. In 2016, she began her Ph.D. in Computer Science at N.C. State, under the supervision of Dr. Min Chi. Her research focused on artificial intelligence and machine learning. Throughout her Ph.D. studies, she worked on solving sequential decision-making problems in healthcare and energy domains.

Upon completion of her Ph.D., Yeo Jin began working as a Research Scientist at the Center for Educational Informatics at N.C. State.

Besides her research, Yeo Jin enjoys writing and traveling with her family.

DOCTOR of PHILOSOPHY

BOLUN LI

Dissertation: *Identifying Performance Inefficiencies via Object-Centric Profiling for Java Programs Running on JVM and Android Runtime*

Committee Chair: Xu Liu, Ph.D.

Bolun Li grew up in Hebei, China. He received his B.S. and M.S. degrees in Computer Science from Sichuan University and Rice University, respectively. In 2017, he began his Ph.D. studies in Computer Science, under the supervision of Dr. Xu Liu. He moved to Raleigh, NC and transferred his Ph.D. to N.C. State in 2020.

His research interest resides in programming language and program analysis, as well as software engineering, with an emphasis on providing tools support for analyzing and optimizing software inefficiencies.

Upon completion of his Ph.D., he now lives in New York, NY where he works as a Research Scientist in Meta Platforms.

DOCTOR of PHILOSOPHY

ZIFAN NAN

Dissertation: *Code Synthesis Based on Natural Language Processing*

Committee Chair: Xipeng Shen, Ph.D.

Zifan Nan was born and raised in Yan'an, China. He received his B.S. degree in Software Engineering from Nankai University in Tianjin, China in 2016. He then moved to Raleigh, NC and joined N.C. State as a Master's student in Computer Science.

In 2017, he started pursuing his Ph.D. in Computer Science, under the supervision of Dr. Xipeng Shen. His research focused on code synthesis based on natural language processing.

Upon completion of his Ph.D. in Fall 2022, he moved back to Hangzhou, China, where he works as a Research Scientist in a Tech company.

DOCTOR of PHILOSOPHY

KYUNGJIN PARK

Dissertation: *Automated Detection of Disruptive Talk in Collaborative Game-Based Learning Environments*

Committee Co-Chairs: James Lester, Ph.D. and Bradford Mott, Ph.D.

Kyungjin Park was born in Seoul, South Korea on October 30, 1988. She completed her B.S. degree in Electronics and Computer Engineering from Hanyang University in 2013. During this time, she had an opportunity to write an undergraduate thesis that was recognized with the outstanding poster award from the Korean Physical Society in 2010. In addition to this experience, she was an exchange student at the University of Arkansas from 2011 to 2012.

After the completion of her undergraduate education, Kyungjin worked as a software developer for GS ITM, then started working as a technical business analyst and a strategy analyst for Korea Telecom (KT) in Seoul. During her time at KT, she met her husband, Hyunwoo, and they decided to pursue their Ph.D. degrees together.

In Fall, 2017, Kyungjin moved to Raleigh, NC to begin her Ph.D. in Computer Science at N.C. State, where she was a Graduate Research Assistant in the Center for Educational Informatics, under the supervision of Dr. James Lester and Dr. Brad Mott. Her doctoral research at N.C. State primarily focused on natural language processing and deep learning applications for collaborative dialogue modeling and procedural content generation. Her research was based on several K-12 game-based learning environments for ecosystem science, computer science, and artificial intelligence education.

DOCTOR of PHILOSOPHY

COLIN POTTS

Dissertation: *Interactive Data Analysis for Experts: Tools, Techniques, and Assessments*

Committee Chair: Arnav Jhala, Ph.D.

Colin M. Potts started his research career in undergrad studying under Dr. Kurt Krebsbach at Lawrence University in Appleton, WI. He studied automated planning and search algorithms in the context of real-time control systems before graduating with a double-major B.A. in Mathematics and Math-Computer Science.

In 2013 he joined the Ph.D. program at N.C. State. From 2014 to 2016 he worked with the Liquid Narrative Group as a Research Assistant focusing on multimedia narrative discourse planning under Dr. R. Michael Young. He transitioned in 2017 to working with the Laboratory for Analytic Sciences on natural language processing and multimedia reporting for semi-structured text datasets.

From 2020 to 2022, he has worked with Dr. Arnav Jhala on interactive natural language processing systems for knowledge discovery and multimedia narrative generation, particularly with the North Carolina Department of Transportation.

DOCTOR of PHILOSOPHY

KAI PRESLER-MARSHALL

Dissertation: *Supporting Computer Science Education Through Automation and Surveys*

Committee Co-Chairs: Kathryn Stolee, Ph.D. and Sarah Heckman, Ph.D.

Kai Presler-Marshall was born and raised in Chapel Hill, NC to Elizabeth and Martin Presler-Marshall. He has a younger brother and a younger sister. He received his B.S. degree in History and another B.S. degree in Computer Science, both from N.C. State.

While pursuing his M.S. degree in Computer Science, he was recruited into the Ph.D. program by Dr. Kathryn Stolee and Dr. Sarah Heckman. Kai wants to thank both of them for their tireless support for providing the motivation to see him through the Ph.D. program.

Kai now lives in Brunswick, Maine, where he teaches Computer Science Education and Software Engineering.

When he is not working, he enjoys hiking and outdoor exploration.

DOCTOR of PHILOSOPHY

NISCHAL SHRESTHA

Dissertation: *Supporting Just-In-Time Learning for Data Science Programming*

Committee Chair: Christopher Parnin, Ph.D.

Nischal Shrestha was born in Kathmandu, Nepal in 1992. He moved with his family to Chapel Hill, NC in 2002, and attended school in Chapel Hill. Before college, he knew he wanted to do something in engineering, so he applied to N.C. State.

He studied his undergraduate work at N.C. State from 2011-2015, earning his B.S. degree in Computer Science. Nischal then interned at WillowTree Apps before he started graduate school at N.C. State. This experience piqued his interest in software engineering research.

In graduate school, Nischal was interested in issues related to both software engineering and human-computer interaction. As he went through the first and second year, his interest grew towards issues related to learning programming languages. He then joined the Alt-Code lab to work on this topic under the supervision of Dr. Chris Parnin.

Nischal eventually interned at RStudio during his fifth year, which shaped his thoughts and the tools he used for the last two projects of his dissertation.

Beyond work, Nischal has always been interested in music and powerlifting. He can always be seen hoisting some barbells and weights at the gym. He also enjoys both listening to and making music through guitar, bass, and through Sonic Pi on the computer.

DOCTOR of PHILOSOPHY

HYUNWOO SOHN

Dissertation: *Temporal-RIDA (Robust and Informative Data Augmentation) for Disease Progression Modeling*

Committee Chair: Min Chi, Ph.D.

Huynwoo Sohn was born in Seoul, South Korea on August 11, 1985. He received his B.S. degree in Information and Computer Engineering from Ajou University in 2010.   After completing his undergraduate degree, he worked for the Republic of Korea Air Force as a Software Engineer and Officer.

After finishing his service, Hyunwoo worked as a Technical Business Analyst for Korea Telecom. While at KT, he met his wife, Kyungjin and they decided to pursue their Ph.D. degrees together.

In the Fall of 2017, Hyunwoo moved to Raleigh, NC to start his Ph.D. journey in Computer Science at N.C. State. He was a graduate teaching and research assistant, under the supervision of Dr. Min Chi. His doctoral research at N.C. State primarily focused on natural language processing, data augmentation, and deep learning applications for disease progression modeling.

In August 2022, Hyunwoo successfully defended his Ph.D. thesis.

DOCTOR of PHILOSOPHY

KENNETH TRAN

Dissertation: *Deep Structural Learning for Fusion in Remote Sensing Applications*

Committee Chair: Hamid Krim, Ph.D.

Kenneth was born and raised in Maryland, where he studied for his undergraduate degree at the University of Maryland, Baltimore County.

After graduating in 2016 with degrees in Computer Science and Applied Statistics, he moved to Raleigh, NC to pursue his Ph.D. in Computer Science, with a focus on machine learning. He worked in Dr. Hamid Krim's lab.

While pursuing his Ph.D., he spent two summers with Lawrence Livermore National Laboratory working on projects relevant to his thesis and two summers with Facebook (now Meta) doing application-focused ML.

He is now a full-time Research Scientist at Meta, working on ML applications for Messenger.

DOCTOR of PHILOSOPHY

TIANPEI XIA

Dissertation: *Assessing the Health Status of Open-Source Software Projects*

Committee Chair: Timothy Menzies, Ph.D.

Tianpei Xia received his B.S. degree in Electrical and Electronic Engineering from Nanjing University of Posts and Telecommunica–tions in 2013. Then he earned his M.S. degree in Computer Science from The University of Texas at Dallas in 2015. He moved to Raleigh, NC in 2016 to pursue his Ph.D. in Computer Science at N.C. State, working in Dr. Timothy Menzies' RAISE research group.

His research focuses on using data mining and artificial intelligence methods to solve real-world problems in the software engineering field, such as exploring new techniques in search-based optimization to improve the performance of current SE predicting tasks (such as effort estimation, text mining, and software health).

Upon completion of his Ph.D., he moved to Mountain View, California and started working as a Research Scientist at a promising Tech startup named NewsBreak. He uses the knowledge he learned from the RAISE lab in his current tasks, including multiple hyper-parameter optimizing strategies, project health monitoring techniques, etc.

In his free time, he likes cooking, traveling, and watching sports.

DOCTOR of PHILOSOPHY

YIQIAO XU

Dissertation: *Analyzing and Scaffolding Semi-Structured MOOC Forums to Support Social Learning and Help Seeking*

Committee Chair: Collin Lynch, Ph.D.

Yiqiao Xu was born and raised in Shandong, China. He received his B.S. degree in Automation Engineering from Xi'an Jiaotong Univ. in Shaanxi, China in 2015. After that, he moved to Raleigh, NC to pursue his Ph.D. in Computer Science at N.C. State, under the supervision of Dr. Collin Lynch.

His research focused on educational data mining. Throughout his Ph.D. studies, he worked on applying natural language processing and social network analysis to build applications to solve pedagogical problems with artificial intelligence.

Upon completion of his Ph.D., Yiqiao is now a Data Scientist at Metlife, located in Cary, NC.

DOCTOR of PHILOSOPHY

XI YANG

Dissertation: *Time-Aware Hierarchical EM Energy-Based Subsequence Learning for Inducing Offline Decision-Making Policies with Heterogeneous Rewards*

Committee Chair: Min Chi, Ph.D.

Xi Yang was born and raised in Shaanxi, China. She received her B.S. degree from Xi'an Jiaotong University in 2012, majoring in Automation. After that, she got a postgraduate recommendation at the Institute of Artificial Intelligence and Robotics at Xi'an Jiaotong University to pursue her M.S. degree.

In 2016, Xi was admitted into the Computer Science Department at N.C. State to continue her research, under the supervision of Dr. Min Chi. Her research focused on developing machine learning and data mining techniques. Specifically, she proposed deep learning and reinforcement learning methods to handle challenging problems in education and healthcare.

In May of 2022, Xi successfully defended her Ph.D. thesis, and now she works as a Research Scientist at IBM Research.

In her spare time, she enjoys musical instruments, cooking, and making handicrafts.

DOCTOR of PHILOSOPHY

GUOQIANG ZHANG

Dissertation: *Cross-Boundary Optimization of Data Analytics Programs*

Committee Chair: Xipeng Shen, Ph.D.

Guoqiang Zhang was born in Guizhou, China and was raised in Hunan, China. He received his B.S. degree in Computer Science from Guangxi University in 2005.

After working as a Software Engineer in the industry for a decade, Guoqiang started pursuing his M.S. degree in Computer Science at N.C. State in 2015.

In 2017, he began his Ph.D. studies, under the supervision of Dr. Xipeng Shen. His research focused on large-scale program optimization and program synthesis.

Upon completion of his Ph.D., Guoqiang joined Meta as a Research Scientist, working on compilers for AI frameworks and accelerators.

In his leisure time, he enjoys reading and hiking.

MASTER of SCIENCE
THESIS

Wyatt Andresen
Multi-Agent Visual SLAM
Chair: John-Paul Ore, Ph.D.

Ishan Bhatt
A Study on the Temporal Predictability of Serverless Functions
Chair: Xipeng Shen, Ph.D.

Virgil English
5GErrQL: Programmatic Error Handling Verification of 5G AKA Implementations
Chair: William Enck, Ph.D.

Shilpa Kancharla
Event-Based Velocity Prediction with Spiking Neural Networks
Chair: John-Paul Ore, Ph.D.

Zhuoran Liu
Interpreting Performance Profiles with Deep Learning
Chair: Xu Liu, Ph.D.

Aishwarya Seth
Comparing Effectiveness and Efficiency of Interactive Application Security Testing (IAST) and Runtime Application Self-Protection (RASP) Tools
Chair: Laurie Williams, Ph.D.

Gurkirat Singh
Adaptive Defensive Deception in IT/OT Networks
Chair: Munindar Singh, Ph.D.

MASTER of SCIENCE
NON-THESIS

Mark Abdelshiheed
Nick Albergo
Brad Erickson
Nasif Imtiaz
Ally Nicole Limke
Preya Shabrina
Jennifer Wellnitz

MASTER of SCIENCE in
COMPUTER NETWORKING
NON-THESIS

Manvita Balachandra
Andrew Haberman

MASTER of COMPUTER SCIENCE

Andrew Abate
Neha Balram Agarwal
Rishabh Agarwal
Priyanka Subhash Ambawane
Ilya Arakelyan
Eshita Arza
Sarthak Babbar
Sri Athithya Kruth Babu
Aditi Avinash Bhagwat
Rahul Bhandary Sevagur
Hiral Rajendra Bhanushali
Harini Bharata
Sravanth Reddy Bommana
Simran Bosamiya
Suneha Bose
Animesh Shashikant Bote
Griffin Brookshire
Evan Brown
Alex Carruth
Vishnu Challa
Shao-Yo Chao
Jianlin Chen
Indu Chenchala
Bonnie Chhatrala
Vamshi Chidara
Hannah Chipman
Raviteja Chirumamilla
Vyas Radhakrishnan Cholayil
Henry Ripp Crain
Drew Cummings
Rushikesh Deodhar
Vinay Deshmukh
Kaustubh Anil Deshpande
Suraj Mallikarjuna Devatha
Prithvish Rakesh Doshi
Sanoli Dusa
Gabriel Francis
Kiran Ganesh
Kevin Gao
Anjali Garg

Anumit Garg
Palvit Garg
Rahul Gautam
Lakshmi Swetha Gavini
Yash Narayan Ghatole
Atharva Mukund Gole
Smerithee Govindhen
Anmolika Goyal
Isha Gupta
Harish Hasti
Sunidhi Hegde
Angela Ho
Guanyu Hou
Shubhangi Jain
Bhargav Harishkumar Jethwa
Palash Jhamb
Reuben Manappallil Varghese John
Rahul Kalita
Saikaushik Kalyanaraman
Venkata Gnana Vardhani Kanamarlapudi
Ayan Kapoor
Dashmeet Kaur
Anushi Veeral Keswani
Asha Lekhraj Khatri
Tommy William King
Luke Knudsen
Kalgee Anand Kotak
Neha Kotcherlakota
Stephen Kubik
Asrita Kuchibhotla
Ben Layko
Nivedita Nirmalchand Lodha
Anmol Lunavat
Sneha Madle
Shruti Satish Magai
Saloni Mahatma
Venkata Sai Teja Malapati
Chandrahas Reddy Mandapati
Shubham Mankar
Kaivan Atulkumar Mehta

MASTER of COMPUTER SCIENCE *(continued)*

Parimal Rohan Mehta
Akhil Kumar Mengani
Shraddha Mishra
Shreyash Omnarayan Mohatta
Kratika Motwani
Tanya Motwani
Lalitha Madhavi Mulakaluri
Samson Reddy Mulkur
Ramya Sai Mullapudi
Shikha Vasant Nair
Ashwini Umesh Nayak
Duy Van Nguyen
Tharun Palla
Shantanu Pandey
Sayali Parab
Kunal Raghunath Patange
Anshul Navinbhai Patel
Chaitanya Patel
Darshan Manharbhai Patel
Jaydeep Patel
Parth Vijaykumar Patel
Senay Patel
Atharva Rajendra Patil
Nikhil Prashant Patil
Yugalee Vijay Patil
Naomi Patrick
Stuart Owen Pelletier
Mukunda Varma Pericherla
Vinay Kumar Reddy Perolla
Robin Piao
Smayana Pidugu
Wyatt Plaga
Neil Gautam Prabhu
Seeya Purnanand Prabhumoni
Shreyansh Arvindbhai Prajapati
Saswat Priyadarshan
Aishwarya Ramachandran
Rahul Ramakrishnan
Shree Lakshmi Ramasubramanian
Vinita Jagdish Ramnani
Rahul Rangarajan Kannan
Nihar Shyamsunder Rao
Kanchan Prahlad Singh Rawat
Bharadwaj Reddy
Roshani
Sairam Venkata Naga Sakhamuri
Sumedh Salvi

Maurya Sappa
Aditya Saraf
Akash Kamalkishor Sarda
Parth Sarthi
Rahil Hitesh Sarvaiya
Shlok Dharmendra Sayani
Lydia Elizabeth Sbityakov
Ashok Kumar Selvam
Leanne Serrao
Neel Shah
Nisarg Shailesh Shah
Rachit Sharma
Vishal Sharma
Manish Sanjay Shinde
Shivani Shivaji Shinde
Shivani Shirolkar
Shreeram Shorey
Naman Shrimali
Venkata Pranav Singaraju
Kailash Singaravelu
Ankit Singh
Shubhender Singh
Shakshi Singhai
Ekansh Singhal
Prakruthi Somashekarappa
Sriram Sudharsan
Pritesh Surana
Bapiraju Vamsi Tadikonda
Chinmay Vijay Terse
Het Nalin Thakkar
Saksham Thakur
Sujith Tumma
Hardik Vikramsinh Udeshi
Ashwin Shankar Umasankar
Sunil Dattatraya Upare
Sai Karthik Vadrevu
Pratyush Ajay Vaidya
Vamsi Varada
Vishal Verra Reddy
Varun Kumar Veginati
Bruno Volpato da Cunha
Mukund Vora
Shubham Waghe
Shalmali Sunil Wandhekar
Anil Kumar Yalla
Nishitha Yza

BACHELOR of SCIENCE

Summer I 2022 Graduates

Jacob Reid Herwick
Kellin Bobby O'Daniel *
Ahmed Salama **
Saif Saleh *
Matthew John Sohacki ***
Rupin Talwar ***

Summer II 2022 Graduates

Joseph Davidson *
Weston Palmer Greene
Soleil Kim-Shapiro ***
Dhairya Kandarp Parikh
Saurav Santhoshnair

Fall 2022 Candidates for Graduation

Brendan Miles Adams
Joseph Christian Anderson
Sumit Biswas ***
Samuel Alexander Blythe
Revanth Sai Bobba ***+
J. Joseph Boike ***
Taha Saleem Bokhari ***
Mohammed Boukhris
Gregory Alexander Bowen
Robert Ellis Bridges ***
Tyler Austin Broyles **
Scott Burnett
Robert William Casey +
Danny Bao Chau *
Yiqin Chen
Yunfei Chen ***
Hyunsirk Choi ***
Allison Dee Church *
Daniel Joseph Cornell Jr. *
Lillian Claire Cummings
Austin Ryan Daugherty ***@~
Claire Elise Davis ***@~
Chen Ding ***
Kim Xuan Do **
Michael William Donohue ***

Raj Dudhatra **
Cameron Steven Dutra ***
Samanta Paola Ferrero Alcerreca *+
Mitchell Greyson Files ***
Jackson Hobart France ***
Ian Gilbert Charles Fright II ***
Timothy Maru Gachigi
Caroline Grace Gillison ***
Alexander Green **
Zachary Michael Groseclose ***
Andreas John Gudmundsson
Jeehe Han *@
Zachary Michael Harris Γ
Ryan Hess
Shruti A. Jadhav
Chirag Jagdish Gunjal ***
Subhashni Kadhiresan **
Hadi Kanawati ***
Randy He Ke
Ankith Gopal Krishna ***
Vishnu V. Kumar
Amir Lawrence **Σ
Mikato Tonamy Leuang
Yibin Li *
Zehao Li **
Zizhen Li ***
Micah Thomas MacLean ***
Kyle Laurence Roberto Manahan
Tristan Marquise
Olivia Glynne Martin **@~
Sean Daniel McKone **
Benjamin Franklin Morris III ***+
Joshitha Lakshmi Muthukrishnan ***Γ
Austin Drake Nason **
Kaylie Naylor
Matthew Khang Nguyen ***
Lawrence Patrick O'Brien II **
Rishi R. Panthee
Neal Jayesh Patel **
Parikshit Patel **
Nishant Yogesh Prasad ***+
Vinayak Ravichandran **+

BACHELOR of SCIENCE
(continued)

Matthew Steven Replogle **
Amanda Brooke Richardson
Victoria Salerno **
Marcus Patrick Schoenherr *Γ
Caleb Joseph Sharpe
Junyao Shen *
Matthew Charles Shorb **
Quentin Victor Sieredzki ***+
Joel Smith
Henry Jason Sneed ***
Zachary Lloyd Snowdon
Keshav Sridhar ***+
Rohan Sukhija **

Dev Nilesh Sutariya **
Justin Jin Takamiya ***
Alexis Renee Tate ***
Benjamin Mast Taylor **
Carter Stephenson Thunes **
Jedidiah Vandeveld ***
Dilli Ram Wagley
Griffin Wheeler **
Nicole Elizabeth Worth *@~
Dongming Wu *
Rongji Yang
Wenzhe Yang **
Prabhav Yerra ***

Bachelor of Science Special Notations Key

*** - 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.
Σ - Bachelor of Science in CSC with Cybersecurity Concentration.
+ - Co-majors (graduating with one or more degrees outside of CSC).
σ - Bachelor of Science in CSC with Security Track.
@ - Computer Science Student Ambassador.
~ - Diploma Ceremony Marshal.

UNDERGRADUATE AWARDS

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.

Claire Elise Davis
Contextualizing Measured Enrironmental Factors Using GPS Data
Honors Advisor: David Roberts, Ph.D.

Zachary M. Groseclose
Data Mining for Plagiarism Detection in Online Exams
Honors Advisor: Edward Gehringer, Ph.D.

Ankith Gopal Krishna
Breaking TYPOS: Docker Vulnerabilities
Honors Advisor: Collin Lynch, Ph.D. and Adam Gaweda, Ph.D.

Zehao Li
Study on the Correlation between Students' Code Inefficiencies and Students' Exam Performance in a CS1 Course
Honors Advisor: Shuyin Jiao, Ph.D.

Neal Jayesh Patel
Network-Aware Microservice-Based Application Website
Honors Advisor: Ruozhou Yu, Ph.D.

Quentin Victor Sieredzki
Modeling of and Co-Design for the Duke STAQ Platform
Honors Advisor: Frank Mueller, Ph.D.

Benjamin Franklin Scholars

The Benjamin Franklin Scholars program allows students to simultaneously pursue bachelor's degrees in both engineering and the humanities or social sciences. The program provides students with broad training and equips them with unique skills to solve complex problems.

Samanta Paola Ferrero Alcerreca
Quentin Victor Sieredzki

CyberCorps®: Scholarship for Service

The CyberCorps®: Scholarship for Service program is a two-year scholarship that covers tuition, fees, supplies, and provides a stipend. Students are expected to complete cybersecurity-focused coursework. For each year of scholarship, students must complete one year of employment in the federal, state, local, or tribal government agency. The Scholarship for Service is funded by the National Science Foundation Grant #1946607.

Amir Lawrence

University Honors Program

In order to be recognized as a University Honors Program graduate, students must complete a minimum of 12 credits of honors seminars, complete a six-credit "Capstone Experience", and maintain a cumulative GPA of 3.25 or higher.

Caroline Grace Gillison
Nicole Elizabeth Worth

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.

Allison Dee Church
Claire Elise Davis
Chirag Jagdish Gunjal
Zizhen Li

COMPUTER SCIENCE FACULTY

Barbara Jasmine Adams, Ph.D.
Bita Akram, Ph.D.
Kemafor Anyanwu Ogan, Ph.D.
Suzanne Balik, Ph.D.
Tiffany Barnes, Ph.D.
Tzvetelina Battestilli, Ph.D.
Donald L. Bitzer, Ph.D.
Franc Brglez, Ph.D.
Alexander Card., Ph.D.
Veronica Cateté, Ph.D.
Min Chi, Ph.D.
Rada Y. Chirkova, Ph.D.
Marcelo D'Amorim, Ph.D.
Anupam Das, Ph.D.
Ignacio Dominguez, Ph.D.
Rudra Dutta, Ph.D.
William Enck, Ph.D.
Adam Gaweda, Ph.D.
Edward F. Gehringer, Ph.D.
Xiaohui (Helen) Gu, Ph.D.
Zhishan Guo, 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.
Jamie A. Jennings, Ph.D.
Arnav Jhala, Ph.D.
Shuyin Jiao, Ph.D.
Guoliang Jin, Ph.D.
Alexandros Kapravelos, Ph.D.
Jung-Eun Kim, Ph.D.
Jason King, Ph.D.
Sandeep Kaur Kuttal, Ph.D.
James C. Lester, Ph.D.

Jiajia Li, Ph.D.
Jianqing Liu, Ph.D.
Xiaorui Liu, Ph.D.
Xu Liu, Ph.D.
Yuchen Liu, Ph.D.
Collin Lynch, Ph.D.
ToniAnn Marini, M.Ed.
Noboru Matsuda, Ph.D.
Sterling McLeod, Ph.D.
Timothy Menzies, Ph.D.
Frank Mueller, Ph.D.
John-Paul Ore, Ph.D.
Thomas Price, Ph.D.
Michael Rappa, Ph.D.
Bradley Reaves, Ph.D.
David L. Roberts, Ph.D.
Gregg Rothermel, Ph.D.
George N. Rouskas, Ph.D.
Alessandra Scafuro, Ph.D.
Jessica Schmidt, Ph.D.
Muhammad Shahzad, Ph.D.
Donald Sheehy, Ph.D.
Xipeng Shen, Ph.D.
Munindar P. Singh, Ph.D.
Matthias Stallmann, Ph.D.
Kathryn T. Stolee, Ph.D.
David Sturgill, Ph.D.
Sharma Valliyil Thankachan, Ph.D.
Raju Vatsavai, Ph.D.
Mladen A. Vouk, Ph.D.
Benjamin Watson, Ph.D.
Laurie Williams, Ph.D.
Dongkuan Xi, Ph.D.
Man-Ki Yoon, Ph.D.
Ruozhou Yu, Ph.D.

COMPUTER SCIENCE STAFF

Carol Allen
Tim Andrews, B.S.
Courtney Barron, M.S.
Carlos A. Benavente, M.S.
Kiresten Branch, M.S.
Kara Cassell, Ph.D.
Tammy Coates, B.A.
Joy Coombs
Trung Dang
Todd Gardner
Cara Glover, M.S.
Ouafae Haddouchi
Ashley Hamilton, M.S.
Marnie Hill, M.S.
Linda Honeycutt
Yeo Jin Kim, Ph.D.
Vikram Kumaran, M.S.
Seung Lee, Ph.D.
Kathy Luca, B.B.A.
Tim MacNeil, M.S.
Terri Martin-Moss
Wookhee Min, Ph.D.
Bradford Mott, Ph.D.
Trey Murdoch, B.S.

Magreth Mushi, Ph.D.
Nia Okoh, B.S.
Okan Pala, Ph.D.
Justin Phillips, M.S.
Tyler Puckett, B.S.
Petya Radey, B.A.
Leslie Rand-Pickett, M.Ed.
Sarah Reaves, M.S.
Donna Richards, B.A.
Laura Rodgers, M.B.A.
Jonathan Rowe, Ph.D.
Sara Seltzer, M.S.
Wendy Shearon, B.S.
Andrew Sleeth, B.A.
Becky Smith, A.A.
Peter Smith, Ph.D.
Bianca Snell, B.S.
Kenneth Tate, B.A.
Anna Thorp, M.S.
Jessica Vandenberg, Ph.D.
Thierry Ketchiozo Wandji, Ph.D.
Gary Weinberg, Ed.D.
Lauren Williamson, B.S.
David Wright, Ph.D.

MARSHALS

Myles Gregor, *junior*
Mason Horne, *junior*
Garret Knapp, *junior*
Annie Lowman, *junior*
Brantley Morgan, *junior*
Brooke Raschke, *M.S.*

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.

The Department of Computer Science thanks

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and

NC State Engineering Foundation

**for sponsoring our Fall 2022
diploma ceremony. Their generous
support benefits the students, faculty,
and staff of the department.**

**Our sponsors join us in congratulating the
Fall 2022 North Carolina State University
Computer Science graduates.**