NORTH CAROLINA STATE UNIVERSITY



SPRING DIPLOMA CEREMONY

DEPARTMENT of COMPUTER SCIENCE

Thursday, May 4, 2023

James T. Valvano Arena at William Neal Reynolds Coliseum

12:00 P.M.

Welcome

Welcome to the Spring 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 2,175 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 Spring 2023 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 10,900.

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

As a courtesy to all our graduates and in recognition of the significance of this ceremony, we ask that all cell phones and pagers be turned off. Also, once the ceremony begins, we ask that all guests remain seated until its conclusion. Thank you for your cooperation!

SPRING DIPLOMA CEREMONY James T. Valvano Arena at William Neal Reynolds Coliseum Thursday, May 4, 2023 12:00 P.M.

Pre-Processional Comments	
Processional	Pomp and Circumstance
Welcome	Gregg Rothermel, Ph.D. Department Head
Speaker	<i>Vice President of IBM Cloud Platform Services</i>
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 <i>Giuseppe Verdi</i>

GUEST SPEAKER

Jerry Tillman, Vice President IBM Cloud Platform Services



Jerry Tillman is an experienced Global Services leader with a demonstrated history of working in the Information Technology and Services industry. Jerry has developed several skills throughout his career, most notable in Cloud, Development Storage, Customer Relationship Management (CRM), DevOps, Site Reliability Engineering, and Software-as-a-Service (SaaS).

As Vice President of IBM's Cloud Platform, Jerry is the head of Engineering for the Platform-as-a-Service (PaaS) portfolio. He leads a global team responsible for the revenue generating service offerings on the platform. His responsibilities include the business strategy, development, delivery and service availability of the PaaS offerings across Dev & Data Services worldwide.

In addition to his current responsibilities, Jerry also sits on IBM's Site Reliability Profession Global Governance Board. "SRE@IBM" is a cross business unit endeavor to jointly define job roles, certification requirements, create learning plans and training material for the SHE methodology. The collaborative goals are to share best practices as well as the experiences of practicing Site Reliability Engineering across multiple areas ranging from Cloud and Cognitive Software.

A proud Wolfpack Alumnus, Jerry earned his Bachelor's degree in Computer Science, with a minor in Mathematics, from N.C. State in 2003.

In his spare time, he has run several half and full marathons when he's not spending time with his family.

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.

KORNELIA BASTIAN

(co-major with Operations Research)

Dissertation: Summarizing and Visualizing NASCAR Driver-Pit Crew Communication for Post-Race Analysis

Committee Chair: Christopher Healey, Ph.D.

Kornelia Bastian grew up in Warsaw, Poland and began her studies there, but following an exchange to the UK, she obtained an M.S. in Automotive Engineering from Coventry University in 2009 and an M.S. in Management Science and Operations Research from the University of Warwick in 2011. Following a number of years working as a Data Scientist, Kornelia moved to North Carolina in 2016 to pursue her Ph.D. at N.C. State, which she completed in 2023.

Kornelia's research focused on text analytics, using NLP, ML, deep learning, and neural network techniques, together with visualization in the field of motorsports in order to build new state-of-the-art strategy and race analysis software.

Since 2022, Kornelia has been working as a lead Data Scientist at Truist Bank in Charlotte, NC, where she uses AI and ML to support all teams across the bank to automate and support the decisionmaking process. She also acts as an area expert for NLP.

KELVIN BOLIN CHENG

Dissertation: Towards Robust, Generalizable and Explainable Stereo Matching for Autonomous Driving

Committee Chair: Christopher Healey, Ph.D.

Kelvin Bolin Cheng earned his B.S. degree and M.S. degree in Computing Science from Simon Fraser University, where he gained a strong foundation in various topics in Computer Science.

In 2019, Kelvin joined the Ph.D. program in Computer Science at N.C. State, with a focus on computer vision under the supervision of Dr. Christopher Healey. During his Ph.D. studies, he tackled various 3D computer vision problems such as stereo depth estimation and object detection. Kelvin's research has been published in prestigious computer science conferences, including the Conference on Neural Information Processing Systems and the International Conference on Computer Vision.

Upon completing his Ph.D. in Computer Science, Kelvin joined Rivian as a Senior Machine Learning Engineer, where he applies his skills to develop and implement machine learning models for autonomous vehicles.

Outside of work, Kelvin enjoys gardening, traveling, and music.

ABIDA HAQUE

Dissertation: New Approaches for Threshold and Traceable Ring Signatures

Committee Chair: Alessandra Scafuro, Ph.D.

Abida Haque grew up in Houston, TX. Before joining N.C. State in 2017, she majored in Mathematical Sciences at Carnegie Mellon University and received a M.S. degree in Computer Science from Georgia Institute of Technology. She was also a Navy Nuclear Power School Instructor.

Her research interests focus on cryptography, specifically managing user anonymity, decentralizing trust, and identifying gaps in current cryptography schemes. Her work includes improving security definitions for ring and group signatures, as well as working on multi-party computation.

Outside of research and teaching, her hobbies include juggling, weightlifting, and walking.

AMAN KUMAR

(co-major with Industrial Engineering)

- **Dissertation:** Information Extraction and Knowledge Graph Development for Manufacturing Science Domain Using Natural Language Processing
- **Co-Committee Chairs:** Collin Lynch, Ph.D., Binil Starly, Ph.D., and Rohan Shirwaiker, Ph.D.

Aman Kumar was born in Varanasi, India and raised in New Delhi. He obtained his Bachelor of Technology in Mechanical Engineering from JSS Academy of Technical Education in Noida, India in 2016. He worked in research roles at Indian Institute of Technology in New Delhi until 2019. He moved to Raleigh, NC in 2019 and joined the Edward P. Fitts Department of Industrial and Systems Engineering at N.C. State to pursue a Ph.D. in Industrial Engineering. He then joined the co-major Ph.D. in Computer Science and an en-route Master in Industrial Engineering in 2021.

His research focuses on large-scale data acquisition and analysis to perform information extraction and development of structured representation of information through knowledge graphs for the manufacturing domain. His work also includes the use of natural language processing techniques applied on historical research text for materials prediction.

Upon completion of his Ph.D., he moved to San Jose, California and started working as a NLP/ML Research Scientist at Hitachi America Ltd. His research is directly applicable to his current work on development of generative large language models for the Industrial domain and exploring domain-specific NLP applications.

In his free time, he likes to explore gadgets, travel, and try different cuisines.

REZVAN MAHDAVI HEZAVEH

Dissertation: A Comprehensive Model of Software Configuration

Committee Chair: Laurie Williams, Ph.D.

Rezvan grew up in Karaj, Iran. She received her B.S. degree in Software Engineering from Karaj Islamic Azad University in 2010 and her M.S. degree in Software Engineering from Sharif University of Technology in 2014. After working as a Software Engineer for almost 2.5 years, she began her Ph.D. in Computer Science at N.C. State, under the supervision of Dr. Laurie Williams in 2017.

Her research focused on software configuration management. During her Ph.D. studies, Rezvan identified practices, heuristics, and metrics to help developers manage software configuration in their code base. She also proposed a model of software configuration to assist researchers in designing their research on software configuration management.

Upon completing her Ph.D., Rezvan joined Google as a Software Engineer.

Outside of work, she enjoys hiking, photography, and watching documentaries.

SHAILAJA MALLICK

- **Dissertation:** Spread of Opinion in a Social Network: Targeted Advertising in Social Networks & Visualizing Product Feature Effects
- **Co-Committee Chairs:** Christopher Healey, Ph.D., and Do Young Eun, Ph.D.

Shailaja Mallick is from Odisha, India, and graduated with a Bachelor of Technology degree in Computer Science and Engineering from Veer Surendra Sai University of Technology in 2011. She then joined Tata Consultancy Services in India as an Assistant Systems Engineer. Later she left the job of Systems Engineer to pursue her M.S. degree in 2013.

Following her M.S. degree from Chalmers University of Technology in Sweden, she joined the Computer Science Department at N.C. State to pursue her Ph.D. in Computer Science in 2017.

Her research interests include applied machine learning, natural language processing, epidemiological models and network science. She intends to pursue a career in industry.

Outside of work, she enjoys cooking, traveling, and spending time with her dog.

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 undergraduate studies 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 B.A. in Mathematics and a B.A. in 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 the supervision of 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, Colin 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.

PREYA SHABRINA

Dissertation: *Exploring Strategy Learning and Data-Driven Subgoal Interventions to Aid Current and Future Problem Solving*

Committee Chair: Tiffany Barnes, Ph.D.

Preya Shabrina received her B.S. degree in Computer Science and Engineering from the Bangladesh University of Engineering and Technology in 2017. Then she worked as a Software Engineer at a startup in Bangladesh. She moved to Raleigh, NC in 2018 to pursue her graduate studies in Computer Science at N.C. State. She earned her M.S degree in Computer Science in 2022, while working towards her Ph.D.

Her research focuses on using data mining and artificial intelligence methods to solve real-world problems in the field of education, such as exploring techniques to generate and evaluate interventions integrated within educational tools to improve learners' learning experience and outcomes.

Upon completing her Ph.D., she plans to move to California and work as a Research Scientist at Meta.

In her free time, she likes reading and traveling.

WENGRAN (EMMA) WANG

Dissertation: Automated, Personalized Examples to Support Creative, Open-Ended Programming

Committee Chair: Thomas Price, Ph.D.

Wengran received her B.S. degree in Environmental Science from Zhejiang University in 2016. She then earned her M.S. degree in Statistics from N.C. State in 2018. She started her Ph.D. in Computer Science in 2019, working in the HINTS Lab, under the supervision of Dr. Thomas Price.

Her research focus is on providing data-driven, automated feedback for programming practice assignments, and investigating the effect of planning and example-based support for novices' creative openended programming.

Upon completion of her Ph.D., Wengran began working as a Machine Learning Engineer at Apple in Seattle.

Besides her research, Wengran enjoys reading, growing plants, and spending time with her family.

MASTER of SCIENCE THESIS

Pankaj Attri

Detecting Cough in Audio Recordings with Out-of-Distribution (OOD) Data Detection Techniques Chair: Edgar Lobaton, Ph.D.

Yuchen Liang *AI Empowered Program Performance Analysis* Chair: Xu Liu, Ph.D.

Jinam Bipin Shah

Author Name Disambiguation in Academic Records Chair: Christopher Healey, Ph.D.

MASTER of SCIENCE NON-THESIS

Isabella Gransbury Sanford Samuel Hodges Zari McFadden Kara Schatz Tanner Verber

MASTER of SCIENCE in COMPUTER NETWORKING NON-THESIS

Aileen M. Jacob Nimalan Manimaran

MASTER of COMPUTER SCIENCE

Abhiieet Abhiieet Meghaj Agrawal Vasu Agrawal Varsha Rao Akinepalli Muhammad Jalal Alahmadi Sidhant Arora Gowtham Sathyan Arulselvan Roshni Balasubramanian Lalit Laxminarayan Bangad Shubham Bansal Harsh Vijay Bathija Naman Bhagat Yash Gaurang Bhansali Tirth Janak Bhatt Dhanush Binoy Ashritha Bommagani Swimitha Reddy Buchannolla AJ Bulthuis Kevin I-Fun Chao Apoorva Chauhan Qiuyu Chen Rachel Chen Selena Chen Uzair Asif Chhapra Vineet Vimal Chheda Vraj Sanjay Chokshi Hrúshabh Chouhan Kehua Cong Tianvi Cong Sri Pallavi Damuluri Ashwin Das Arnab Datta Vinit Rajul Desai Yashvi Desai Pratik Rajesh Devnani Suyog Shekhar Dharmadhikari **Čonnor James Dolan** Divvang Doshi Nolan Dowdle Liwen Du

Shubham Dua Gage Fringer Anant Gadodia Akhil Gangarpu Sudhakar Kai Gao Arun Gaonkar Priyam Garg Varun Garo Mithil Ghinaiya Manasi Sanjay Ghosalkar Uma Gnanasundaram Shakthi Nandana Govindan Max Groover Minghao Guo Zonghan Guowang Divvank Gupta Muskan Gupta Siddhant Gupta Brian Thomas Hambleton Leo Hsiang Chao-Ting Hung Ratan Immidisetti Aswin Itha Kiran Asher Jacob Aditya Ravikant Jadhav Krish D. Jain Moksh Rajesh Jain Rithik Jain Sudharsan Janardhanan Siddarth Jayakumar Yuyang Jiang Parth Sarang Jinturkar Kimberly Jones Atharva Joshi Arnav Julka Karan Suresh Kajani Urvashi Kar Shreya Someswar Karra Bharath Katabathuni Sajal Kaushik

MASTER of COMPUTER SCIENCE (continued)

Aditva Kailas Khadse Kriti Khullar Ashley Nicole King Jagdish Dinesh Kini Rucha Bhushan Kolekar Vijaya Durga Kona Rachana Kondabala Natalie Kraft Dev Kumar Manoj Thiraviam Kumar Niraj Lavani Kan-No Lee Dong Li Joshua Lin Rundi Lin Yu-Hsuan Lo Zhiyuan Ma Jvothi Sumer Goud Maduru Nikita Murlidhar Mahajan Abir Maiumder Srujana Marne Shiva Rao Matthew Martin Nikhil Mehra Dev Gaurangbhai Mehta Ryan Pierce Mertz Yash Mishra Prit Modi Rohit Mohan Amr Moussa Ankur Mundra Rakesh Muppala Vignesh Muthukumar Sai Sree Nalluru Sahil Rajesh Nande Chirrag Nangia Ajeeth Adithya Narayan Sairaj Suhas Nemmaniwar Diksha Paliwal Anirudh Pande Saksham Shailesh Pandey

Het Kiritkumar Patel Rishi Patel Urmi Kashyap Pathak Vaishnavi Jayavant Patil Shivam Vivek Pednekar **Ruth Perrv** Vedang Sudhir Pingle Aakash Satish Poliyath Sruian Ponnur Rohan Javant Prabhune Akshaya Raghuthaman Radhika Bangalore Raman Ashrita Ramaswamy Srivatsan Ramesh Anisha Raghavendra Rao Brooke Raschke @~ Atharva Yashwant Risbud Renii Joseph Sabu Rithvik Sallaram Sai Venkata Vinay Kumar Samudrala Bella Sámuelsson Akash Mukesh Sanghani Arjun Sarihyan Andy Sauerbrei Kasimir Schulz Harikrishna Selvaraj Prashan Sengo Harshil Shah Jainam Ketan Shah Jay Rajiv Shah Kaivan Shah Pathey Vipulbhai Shah Rohań Jigarbhai Shah Li-Yu Shan Ashwith Ramesh Shetty Manali Shirsekar @~ Shubham Shubham Rahul Shukla Aayush Indrapratap Singh Rohan Sinha

MASTER of COMPUTER SCIENCE (continued)

Connor Smith Alex Snezhko Matthew John Sohacki Yuanming Song Andrew Bryan Sonnier Zunaid Hasan Sorathiya Arvind Srinivas Subramanian Nitish Pravin Talekar **Rupin Talwar** Ameya Tathavadkar Aditya Dev Tewari Ganesh Thanu Parth Shailesh Thosani Subodh Thota **Ritwik Tiwari** Radhika Jitendra Toravi Neelkanth Tripathi Abhishek Arvindkumar Upadhyay Joseph Antony Vaikath

Krishna Saurabh Vankadaru Pradyumna Vemuri Sai Kumar Goud Vengali Subramanian Venkataraman Nathan Vercaemert Shruti Verma Kunwar Vidhan Prateek Wadhwani Amey Shrikrishna Waghmode Kelly Wang WeiRui Wang Hugh Wright Tyrone Wu Vincent Jian Xin Yishaka Yadav Jaicheng Yang Zhijin Yang Fu-Jen Yen Gaolin Zhang

Master of Computer Science Special Notations Key

- @ Computer Science Student Ambassador.
- ~ Diploma Ceremony Marshal.

BACHELOR of SCIENCE

Allison Nicole Abel *** Ifeoluwa William Aderemi * Claire Madison Aguiar *** Noah Gabriel Alexander $**\Sigma$ Cade Allred *** Σ Christian Edward Andersen *** Emily Marie Applegate ** Auma Asiyo ** Cameron Lané Baker ** Ananya Balakkari * Logan Marie Baldwin ** Henry Vance Barnette, IV *Γ Brandon Barrentine * Hrishi Batta ***@ Jacob L. Beaslev ** Shreyas Bellary^{**+}+ Alex Jeffery Bernard ** Brody Bond $*\sigma$ Alexander James Boots * Michael Borasy * Brandon Ray Braswell **Σ Joseph Bream *** Brian James Brooks * Nicholas Bruinsma Jonathan Michael Buck *** Kevin Bui *** Elstan Bultonsheen σ Pavan Bykampadi ** Alexandra Nicole Cail * Dominic Matthew Carelli Karthik Chandran **Γ Dylan Atul Changela ** Derrick Chen Thomas Chen *** Godsend B. Cheung *** Kevin Childs **Σ Manasa Sai Chinta *** John Cho *** Alex Nguyen Chu **+ Bennett Wesley Clapp **

Cedric Clvburn Chace Allen Coltrane **Σ James Anthony Conway John Michael Cornelison Michael William Costello *Σ Aditi Debnath *** Smit Shiban Dedhia *** Mathew Lawrence Deel *** Colby John Dennis *** Nisha N. Deshpande * Nikhil Dixit * Siddhant D. Doshi *** Mitchell Dunning ** Josiah Edwards * David Andres Elizondo-Alvarez *** Seth Michael Emory * Tyler Steven Enck *** Micah James Erb *** Luis Manuel Fajardo Andrew Farkas *** William J Flathmann * Juan Esteban Franco Pinilla ** Geoffrey Fylak ** Jose Angel Garcia-Gomez ** Jonah Ghebremichael *** o Darren Kainoa Stephen Gonsalves Casey James Greene * Alon Meir Greyber ***+ Simon Durant Griggs *** Ouafae El Haddouchi Anna Katharina Hagedorn * o Guorui Hai *** Jada Simone Hampton** Isaac Allen Handy *Σ Alexander Wesley Hardin **Σ Nicholas Charles Hargrove *** Avery Hawkins Haley Elizabeth Heath ** Brice Alexander Helms Kayna Lexiane Henningham * Raven Hérail **Σ

BACHELOR of SCIENCE (continued)

Ashten Grant Herr *** Katarina Noelle Hicks Noah Jacob Homan * Jing Huang *** Isaac Michael Hughes ** Brian Huy Huynh ** Minho Hvun * Cameron Thomas Incze *** o Anagha Jandhyala *** Brayden Joseph Johnson ***Σ Kacey Cejai Johnson Joel Anthony Johnson Jr Rvan Matthew Jones ***+ Seungchul Jun ** Rishabh Sandeep Karwa ** Savanna Louise Kashnia *** Saad Ullah Khan *** Hans Khatri *+ Mohhid Salman Kidwai *** Daniel Jo Kim *** Minsung Kim **@ Aditya Konidena *** Benjamin J. Kurian * Jack Raymond Lanois *** Brandon Jason Le Rvan William Lee Trevor Michael Leibert *** Benjamin Scott Lewis ** Matthew Lewis ** Yilong Li * Xiaochun Liang * Keagan Celeste Lindsey **@ Benson Liu ** Charles Weston Lomax **Γ Andrew Ivan Lopez ** Paul Edward MacNichol * Elizabeth Grace Madren *** Harini Mahesh *** Kyle Laurence Roberto Manahan Shruti Marota ***@ Osama Adil A. Mashabi **

Aidan McCarthy ***+ Blake Thomas McKinley *** Joel Patrick McKinney *** Austin James McNeill *** Mario Alberto Medel Penaloza * Utkrisht Mendiratta σ Jonathan David Miner *** Komal Misra Alexander Elias Mitchell * Rene Montes Haro Niall Patrick Moncrief Mullane ***+ Tristan Chance Mullins *** Chaitanya Muragundi Akhilesh Saivenkat Neeruganti *** Ryosuke Noma * Simon Joseph Oliveros *** Zhicheng Pan ** Aashutosh Ram Parajuli *** Maya Patel *** Pradeep Arunkumar Patil *** Katelyn Destiny Paulsen *** Meghana Penaganti *** Henry Edward Pinyan ***+ Pujitha Polimetla *** Zachary Lynn Polleck *** John Randle *** σ Rohan S. Rao *** Sneha Karthik Rao *** David Root *** Ketan Kumar Ryan ** Renan A. Santos * Micah Sargent *** Gabriel Lewis Sarver Colin Leigh Scanlon ***+ Arthur Schell *** Elliott Breck Schultz *** Yuval Sherman *** Cameron B. Siddle Binivam Tedla Sima * Shaqunpreet Singh σ Jerin Austin Smith ***+

BACHELOR of SCIENCE (continued)

Helen Menbere Solomon Aneesh Sreedhara ** Chitra Srinivasan ** Mingyu Sun ***+@~ Zane Ándrew Taylor *** Eliza Thornton *** Tiffany Tien Truong ** Prathik Velagapudi ^{***}Σ James Jedidiah Waldon * Haobai Wang *** Qichen Wang * Andrew Watson ***

Gabriel Porter Weaver *** Nickolas Holden Wiblitzhouser * Jared Lee Willey David Michael Williamson Pepper Wingerd-Felan ***Σ@ Samuel Lankford Wood *** Σ Michael Kaito Woods * Jakob Riley Woodard * Lingjia Xu Dion Fredrick Ybanez ** Shaolong Zhou Christian Žiller *

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 Senior Award for Scholarly Achievement Elliott Breck Schultz

Computer Science Senior Award for Citizenship and Service Kevin Childs

Computer Science Senior Award for Humanities Jerin Austin Smith

Computer Science Senior Award for Leadership Mingyu Sun

CSC Department Faculty Senior Scholar Claire Davis

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 Beasley

Game2Learn Curricula Repository Honors Advisor: Veronica Cateté, Ph.D.

Alexander James Boots

Interactive Generative Methods Honors Advisor: Tiffany Barnes, Ph.D.

Manasa Sai Chinta

Human Perception and Storyline Honors Advisor: Arnav Jhala, Ph.D.

Computer Science Honors Program (continued)

Guorui Hai

Approximating the Traveling Salesperson Problem by Hybridizing Grey Wolf Optimizer with 3-Opt Honors Advisor: Steffen Heber, Ph.D.

Minsung Kim

Rosie Pattern Language Honors Advisor: Jamie Jennings, Ph.D.

Keagan Celeste Lindsey

User Experience for Educational Notebook PLatform Honors Advisor: Christopher Parnin, Ph.D.

Benjamin Scott Lewis

Ottery: Secure Drop-off and Pickup Honors Advisor: Lina Battestilli, Ph.D.

Paul Edward MacNichol

Optimizing a Parsing Expression Grammar DSL Using Super Instructions Honors Advisor: Jamie Jennings, Ph.D.

Shruti Marota

Security Education Portal Projects Honors Advisor: Laurie Williams, Ph.D.

Niall Patrick Moncrief Mullane

3D Voronoi Diagrams Research Honors Advisor: Donald Sheehy, Ph.D.

Tristan Chance Mullins

Loop Unrolling and Related Optimizations for a Pattern Matching Virtual Machine Honors Advisor: Jamie Jennings, Ph.D.

Rohan S. Rao

Snap Interface Development Honors Advisors: Veronica Cateté, Ph.D. and Tiffany Barnes, Ph.D.

Mingyu Sun

CONCERT: Coordinating Educational Interactions for Student Engagement Honors Advisors: Tiffany Barnes, Ph.D. and Collin Lynch, Ph.D.

Park Scholars

A four year scholarship covering tuition, fees, board, books, supplies, travel, and personal expenses.

Anagha Jandhyala

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.

> Jonathan Michael Buck Alon Meir Greyber Hans Khatri Aidan McCarthy Jerin Austin Smith

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.

Pepper Wingerd-Felan

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.

> Geoffrey Fylak Harini Mahesh Henry Edward Pinyan

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.

Jose Angel Garcia-Gomez Elizabeth Grace Madren Maya Patel Rohan S. Rao Mingyu Sun

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) Ğu, 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. Jianging 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. Beniamin 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. Trung Dang Todd Gardner Cara Glover, M.S. Ouafae Haddouchi Ashley Hamilton, M.S. Marnie Hill, M.S. Linda Honevcutt 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.

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MARSHALS

Hannah Estes, *junior* Myles Gregor, *junior* Garret Knapp, *junior* Sophia Laciano, *junior* Annie Lowman, *junior* Brantley Morgan, *senior*

PHOTOGRAPHY / VIDEOGRAPHY

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.

This program is prepared for informational purposes only. The appearance of an individual's name does not constitute the university's acknowledgment, certification, or representation that the individual has fulfilled the requirements for a degree.

The Department of Computer Science thanks



and

NC State Engineering Foundation

for sponsoring our Spring 2023 diploma ceremony. Their generous support benefits the students, faculty, and staff of the department.

Our sponsors join us in congratulating the Spring 2023 North Carolina State University Computer Science graduates.