

Mathematics and Computer Science Alumni NEWSLETTER

Greetings!

Dear Friends,

My name is Dr. Jiacheng Cai and I am the mathematics and computer science (MATH/COSC) alumni coordinator at Salisbury University. On behalf of the faculty and staff of the Mathematical Sciences and Computer Science departments, I am sharing some of our exciting news from 2024 to 2025 with you in this newsletter.

Jiacheng Cai

Student Successes

Our students continue to excel and bring significant recognition to our departments and the university. In spring 2024, a team of four actuarial students, advised by Dr. Jiacheng Cai, participated in the Society of Actuaries (SOA) 2024 Student Research Case Study Challenge. This international competition included over 250 students from 57 teams representing 27 universities across 12 countries and six continents. Our team (Cameron Cash, Carly Pfaff, Emily Shaeffer and Lauren Specht) won third place, making us the only U.S. institution to win a prize, surpassing teams from Penn State, Ohio State, College Park, Towson and more!

- 1 *The third-place winning team of the SOA 2024 Student Research Case Study Challenge, (from left) Carly Pfaff, Dr. Jiacheng Cai, Lauren Specht, Emily Shaeffer and Cameron Cash.*

Senior computer science major Sean Berndlmaier won the 2024 Salisbury University Annual Student Entrepreneurship Competitions with his business plan, IndoorNav Pro, earning a \$19,125 total prize package. Junior computer science major Stephora Alberi received the 2024 University System of Maryland Board of Regents Student Excellence Scholarship in the Outreach and Engagement Category. She also was named Fulbright Student semifinalist for the 2025-2026 program in the category of academic study and research award to Estonia. Sam Dickerson, a junior computer science student, received the U.S. Department of State's prestigious Benjamin A. Gilman International Scholarship. A team of computer science students (Brian Bowers, Isaac Dugan, Spencer Presley and James Montebell) won the Best Hack category at Bitcamp 2024, a 36-hour hackathon hosted by the University of Maryland. Additionally, Dustin O'Brien, Isaac Dugan, JJ McCauley and Spencer Presley won Second Overall and Best Educational Hack at hackUMBC with their AI-powered test creation assistant, Testif.AI.

- 2 *Sean Berndlmaier won SU's annual Student Entrepreneurship Competition.*
- 3 *The winning team of the 2024 Bitcamp.*



continued

Student Successes continued



Throughout the 2024-2025 academic year, our students conducted research in algebra, data visualization, statistics applications, actuarial and finance analysis, mathematics education, and computer science. These projects were presented at the SU Student Research Conference (SUSRC), SU Summer Research Showcase and Posters on the Bay, with several students successfully publishing their work with their mentors.

Our student researchers presented to Maryland's elected representatives – including Gov. Wes Moore – at the annual Posters on the Bay.



Our students work on projects that not only benefit their own professional development but also benefit local organizations and businesses. Advised by our faculty members, several students participated in internship/research projects to help local organizations, such as NASA Wallops Flight Facility Ground Safety Branch, TidalHealth, Salisbury Fire Department, and Ocean City Recreation and Park Office, to perform statistical and data analysis for specific problems.

Our programs helped students to achieve their academic and career goals. Many students successfully obtained graduate school offers from top universities – such as Georgetown University and Carnegie Mellon University – and job offers from prestigious companies – such as Guardian Life, Pricewaterhouse Coopers, Aon, Ullico and CavMac.

Math student presented at the 2024 SUSRC.

Events for Our Students

Our departments continue to host events and activities to enhance our students' experiences beyond the classroom. In fall 2024, the Department of Mathematical Sciences hosted its first Resume Workshop for Math and Data Science Students, led by Dr. Jiacheng Cai, focusing on crafting standout resumes and exploring job opportunities.

1 Resume Workshop

In spring 2024, the Department of Computer Science hosted a JP Morgan Recruitment Information Event, featuring Ryan Rosiak, a computer science alumnus (Class of 2022) and software engineer at JP Morgan, who shared invaluable recruitment information and experiences with our students.

2 Ryan Rosiak shared JP Morgan recruitment information.

In fall 2024, we organized our first student field trip to the Washington, DC, area, in collaboration with the SU Economics Club. Led by Dr. Veera Holdai, Dr. Silvana Chambers and Dr. Jiacheng Cai, students visited the Bureau of Economic Analysis and the Georgetown University Data Science and Analytics Program, and they had lunch with alumni Nicholas Feehley and Sarah Chambers, who shared their invaluable experiences.

3 • Field Trip Visiting the Bureau of Economic Analysis • Lunch with Alumni Nicholas Feehley and Sarah Chambers

In spring 2025, our computer science and math students visited NASA Wallops Flight Facility (WFF), exploring fabrication facilities, the balloon center, the Range Control Center and the launch pads. This trip provided students with deeper insights into their fields and real-world professional jobs. Special thanks to the Math and Computer Science Club, Dr. Mike Bardzell, Dr. Junyi Tu, Dr. Veera Holdai, Dr. Xiaohong Wang and Jung An for organizing this field trip.

4 Field Trip to NASA WFF

The Math and Computer Science Club held its annual Math Challenge in spring 2025 and the GullCode Programming Competition in spring 2024, offering students opportunities to apply their knowledge and skills to solve challenging problems.

5 Math Challenge Winning Team: Dustin O'Brien, Abigail Pierson and Kyle Tranfaglia

STAY CONNECTED

Both Mathematics and Computer Science departments are grateful for generous support from our alumni. If you'd like to give to our students and programs, please consider making a gift. Search for "math" and/or "computer science" online to find the area you'd most like to support: giving.salisbury.edu

We are hoping to establish a connection with you to share future news. We also hope that you will take this opportunity to share your news with us. In any event, know that we are proud of you and would love to hear from you. Together we soar!

Please contact Dr. Jiacheng Cai (jxcai@salisbury.edu) to share your story of success (news/updates) or to participate in an alumni presentation or discussion panel.



Faculty News and Program Development



Our faculty continues to provide professional scholarships. Dr. Jathan Austin, Dr. Jiacheng Cai, Dr. Veera Holdai, Dr. Ryan Shifler, Dr. Melissa Stoner, Dr. Kyle Teller, Dr. Junyi Tu and Dr. Shuangquan Wang have published multiple articles and/or presented their works in the fields of number theory, mathematics in games, applied statistics, abstract algebra, mathematics education, data science and signal detection with applications.

The National Science Foundation (NSF) is helping Salisbury University use artificial intelligence (AI) solutions to solve problems for local agencies, business and non-profit partners. Dr. Clifton Griffin, dean of graduate studies and research; Dr. Xiaohong “Sophie” Wang, chair of SU’s Computer Science Department; and Michael Jensen, executive director of entrepreneurship, received a three-year, \$380,000 NSF grant to lead the project “Rural AI Solutions and Engagement (RAISE).” The congratulations extended to Dr. Annie Lu, who received another three-year grant (\$447,093) for NSF REU Site: EXERCISE – Explore Emerging Computing in Science and Engineering. Dr. Annie Lu also won the 2024 Outstanding Research Mentor award.

Dr. Shuangquan Wang and Prof. Carvel LaCurts received 2023/2024 Henson Excellence in Teaching Awards for their outstanding teaching and dedication to students.



Receiving the Henson Excellence in Teaching Award: ① Dr. Shuangquan Wang ② Prof. Carvel LaCurts

In fall 2024, Dr. Deepak Bastola joined the Department of Mathematical Sciences. Bastola received his Ph.D. from the University of California, Riverside with expertise in applied statistics. He has rich experience in teaching, mentoring undergraduate research, statistical analysis, and programming. His experience benefits our students in multiple dimensions.

Dr. Kyle Teller and Dr. Deepak Bastola are participating in Project NEXt, the national program of the Mathematical Association of America that supports new faculty members in the mathematical sciences.

Our faculty continues to develop and adjust curricula to better serve students professional development needs. A new actuarial course has been created, and the actuarial science minor has been redesigned for greater accessibility. Several math and computer science courses have been updated to meet current academic and career requirements, with ongoing adjustments. Dr. Peter Wang and Dr. Junyi Tu developed two new COSC 490 Special Topics courses: Large Language Models and Application, and Convolutional Neural Network and Applications.

40th Annual Eastern Shore High School Mathematics Competition

Students from 20 schools in Delaware and Maryland demonstrated their mathematical talents in Salisbury University’s 40th annual Eastern Shore High School Mathematics Competition.

“For 40 years we have been inviting students and teachers from the region to campus for a day devoted entirely to having students engage in the area of mathematical problem solving,” said Carvel LaCurts, senior lecturer of mathematical sciences, who co-directs the competition with Dr. Kyle Teller, assistant professor of mathematical sciences, and Dr. Kurt Ludwick, associate professor of mathematical sciences. “The students’ participation in this event emphasizes the importance of STEM (science, technology, engineering and mathematics) education at the collegiate level and future careers in the field.”

Students engaged in problem-solving activities during the team round and responded to multiple-choice questions in the individual round. Contest questions from the areas of algebra, geometry, functions and function notation, exponents and logarithms, trigonometry, probability, statistics, logic and set theory, arithmetic sequences, geometric series, and/or number theory were included in the competition.

First-place team honors went to Delmar High School’s Rudra Patel (who also took home first in the individual competition), Mustafa Kilcarsian (who earned third in the individual competition), Joseph Morelli, Greyson Williams and advisor Catherine Dignazio. The second-place team winner was Stephen Decatur High School’s Benjamin Chase, Logan Donmoyer, Tyler Kim (who also earned second in the individual competition), Mara Mills and advisor Amy Fenzel-Mergott. The third-place team award went to James M. Bennett High School’s Harish Chandrasekaran, Eden Debebe, Nathanael Groth, Peter Jin and advisor Michelle Slatcher.

“The contest was initiated in 1984 by three SU mathematics professors: Dr. Robert Tardiff and the late Drs. Homer Austin and Bob Ehrlich,” said Ludwick. “This annual competition allows students to showcase some of their proficiency in math.”

“Once again we are grateful for the long-standing partnership with the Klein G. and Mary Lee Leister Foundation and Delmarva Power, an Exelon Company, in making this event a huge success,” said Teller.

The Winning Team of the 40th Annual Eastern Shore High School Mathematics Competition

