

NEWSLETTER

Spring 2024- Volume 3

Clayton State University- College of Information and Mathematical Sciences (CIMS)

Faculty Spotlight



On Saturday, March 23rd 2024, **Christopher Kodani** (Professor of Biology) was honored by Georgia Adopt-A-Stream with the 2023 Trainer of the Year Award in the annual meeting at Unicoi State Park. This award recognizes the accomplishments of trainers with more than three years of experience with Adopt-A-Stream.

On December 8th, 2023, **Penelope Cliff** (Director of Archives & Information Studies program) was voted member of the Friends of Georgia Archives and History board (FOGAH).



Shakil Akhtar (professor of CSIT) has acquired a grant of \$131,290 for collaborative research. This project presents a holistic design and development approach for DL-based image detection involving medical imaging for cancer cell growth detection and treatment.



New Faculty and Staff

This year the College welcomed a new staff member! Executive Assistant to the Dean, Genesis Polo as well as merged programs with the school of science. Welcoming associate Dean, Dr. Michelle Furlong with faculty and staff members from Biology, Chemistry and Physics.

Grants

6 projects have been funded with the total amount of \$712,706

1. NSF) LEAPS-MPS: New tools and techniques in Harmonic Analysis and Geometric Measure Theory. Submitted. Dollar amount: (T. Merchán)
2. Robots Reason Under Uncertainty," funded by NASA, 2023-2024.(Xiangdong An)
3. Robots Collaborate Under Uncertainty While Exploring the Moon," funded by Clayton State Retirees Association, (Xiangdong An)
4. Collaborative Research: CISE-MSI: RCBP-RF: CNS: ESD4CDaT - Efficient System Design for Cancer Detection and Treatment," funded by NSF, 2023-2025. (Shakil Akhtar)
5. Use of Text-based Animation to Teach Programming in Computer Science Courses," funded by Clayton State Retirees Association, 2023-2024. (Muhammad Rahman)
6. Artificial Intelligence Study in Earth Exploration Summer Academy," funded by NASA, 2023-2028.(Shuju Bai, Co-Junfeng Qu)

Collaborations

Clayton State University and Atlanta Technical College- the MOU articulation agreement between CSU and ATC

is set to enhance academic studies in the following six key areas: Cybersecurity, Computer Programming, Database Specialist, Networking Specialist, Bioscience Technology, Interdisciplinary Studies

Clayton State University and Henan Institute of Science and Technology, China- This MOU specifies the collaboration between the two universities in establishing and implementing the collaborative undergraduate 4+0 program in data and computer science.

Clayton State University and Anhui Xinhua University, China- This MOU focuses on the collaboration between the two universities in establishing and implementing the collaborative undergraduate 3+1 program in software engineering and computer science. Clayton County and Clayton State University

Cybersecurity certificate program- Students attended a free certificate program where they learned curriculum on offensive & defensive foundations, computing & networking basics, linux and introduction to automation.



To become a Scholarship sponsor: Go to <https://clayton.edu/give-now>. On the donations amount section, click on the drop-down menu and select "other fund." After selecting "other fund" a box will appear below where you will type out "CIMS Symposium."



Or scan the QR Code

Student Spotlight

1. Students attended the Association for Computing Machinery (ACM) conference and won 2nd and 3rd places for their presentation. ACM is the world's largest educational and scientific computing society.

2. A group of 9 students from CSIT won 3rd place of Technical Posters Award (Underclassman) in 2024 NASA MINDS competition. A total of 45 teams representing 32 Minority Serving Institutions (MSIs) from 16 states/territories finished the 2024 NASA MINDS competition.

3. Students of Plant Physiology and Ecology enjoyed the Lakeview Discovery and Science Center Pollinator Garden or rather habitat this semester. The small but rich community was assessed, and evolutionary relationships explored. At the end of the semester, volunteers helped to gently weed and care for this rich habitat. Students soon learned the true value of ecosystem services after discovering several bird nests and other animal homes as well as various pollinators in the garden.

4. CSTEM's MS in Data Science scholar, Darshan Patel has landed a data science/machine learning internship role with Automatic Data Processing, INC (ADP). In his role, Mr. Patel will be extracting and analyzing data from multiple systems, develop visual representations with actionable recommendations, and interact with developers, designers, and executives to demonstrate model performance and business value.



College Events

- **Launchpad Leadership Academy-** On January 25, 2024, the inaugural opening of the Launchpad Leadership Academy's new campus space at Room 329 in the James M. Baker University Center. Many industry partners, community leaders, and CSU faculty, staff and students joined in for a networking event hosted by the College. **3rd Annual**
- **Symposium-** On March 27-28, CSTEM hosted their 3rd annual symposium on March 27th and 28th 2024. The theme for 2024 was "Advancing Social Mobility Through STEM".
- **Solar Eclipse Gathering-** The department of CSIT hosted a watch gathering for the Solar Eclipse that took place on April 8th, 2024. Many gathered with their solar eclipse glasses that were provided by the department. This event was anticipated since the next solar eclipse will not take place for another 20 years!
- **Atlanta Science Festival-** On March 16th community members and CSU students enjoyed guided nature walks, tours of the nature center and planting wildflower seeds at the green jewel of South Metro Atlanta that is Reynolds. **Science Research Day-**
- Sciences hosted its research day to allow students to showcase posters and presentations about their research projects or internship experience

Publications

1. E. Alvarado, L. Catalano, T. Merchán, L. Naples Asymptotics of maximum distance minimizers, submitted for publication in RACSAM (2023), <https://arxiv.org/abs/2309.0805>.
2. L. Catalano, T. Merchán, On rational functional identities, Commun. Algebra (2023), DOI: 10.1080/00927872.2023.2247488.
3. E. Krop, A. Mittal, M. Wigal, The Cordiality Game and the Game Cordiality Number Graphs and Combinatorics, accepted to Graphs and Combinatorics (2024)
4. C. Raridan, et. al. The conclusion to the edge-balanced index set problem for complete bipartite graphs, accepted for publication in PROMS (54th SE conference) (2024)

WWW.CLAYTON.EDU/CIMS

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Volume 3

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Student Awards

Every spring semester our college holds a student award ceremony to celebrate our students and recognize their achievements. This spring on March 27th 2024 we held our 19th annual student award ceremony. We awarded 10 prestigious awards to our outstanding scholars. **Information Technology Outstanding Scholar Award:** AASIT- Jonathan Clement / BIT- Lucas Cao

Computer Science Outstanding Scholar Award: BSCS- Anna Marie Tinsley
Annita Hunt Award: Oluwadamilola Adesiyun

Billy R Nail Mathematics Award: Yulisa Govea-Morales

Billy R Nail Mathematics Scholarship: Yulisa Govea-Morales

The Rising Senior Award: Lucia Campos

O C Lam III Award for Excellence in the Biological Sciences:
Raniah Al Juboori

Jim Braun Award for Excellence in Chemistry: Clayton Garcia

Freshman Chemistry Award: Michael Jones

Catherine Aust Award for the Best All-Around CIMS Major:
Anna Marie Tinsley



Industry Partners

Mailchimp/ Intuit, TDK Google, ADP, Henry County Schools, Intel, Cobb County Commissioner, Coca-Cola, Atlanta Technical College, Associated Credit Union, Colonial Pipeline, Costco Business Center, Georgia Power, Atlanta Gas Light, COX Enterprise, NARA, Metro Atlanta Chamber, Clayton County ITS, Delta

Thank you to our industry partners who are committed to providing our students with opportunities of growth professionally, personally, and academically.

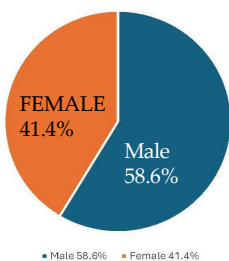
In 2024 we welcomed Atlanta Gas Light, NARA, Metro Atlanta Chamber, Henry County Schools, Associated Credit Union, Cobb County Commissioners and Atlanta Technical College to our Industry ecosystem.

2023-2024 STEM Advisory Council

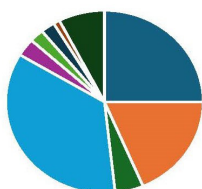
Ken T. Takekawa, Joe Uhl MailChimp, David Byrd Google, Brandon Perry ADP, Justin Haight Metro, Jeff Goolsby Georgia Power

860 Clayton State University students were enrolled in one of the majors provided by the College, with computer science ranking in the top numbers at 304 students enrolled and biology in second with 215 students enrolled in the fall 2023 semester. While studies confirmed that some STEM majors, such as physics and computer science, are male-dominated, there has been an increase in the number of females in STEM related majors.

Enrollment by Gender Fall 2023

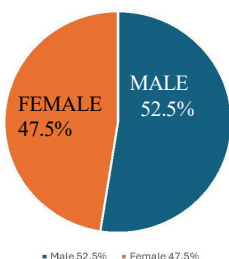


Enrollment by Major (Graduate & Bachelors)



■ Biology 215 ■ BIT 160 ■ Chemistry 40
■ Computer Science 304 ■ Mathematics 27 ■ Archival Studies 20
■ MS Cyber Tech 20 ■ MS Data Science 9 ■ Associate (IT, PE, PP) 65

Enrollment by Gender Spring 2024



2024 Symposium



The College of Science Technology Engineering and Mathematics hosted their 3rd annual symposium on March 27th and 28th 2024. The theme for 2024 was "Advancing Social Mobility Through STEM". The

event hosted over 810 students, industry partners, faculty/ staff, and community members across the two day event. This annual event is used to generate scholarships for our students, college of STEM workers hard to supply the workforce with talented, passionate, and educated STEM professionals. Thank you to our 2024 symposium sponsors and attendees!



New & Upcoming Programs

- The Bachelor of Information Technology program curriculum is enhanced by adding a new concentration, Computer Engineering Technology. Courses are offered in Spring 2024.
- The Bachelor of Science in Computer Science program curriculum is enhanced by adding a new concentration, Computer Engineering. Courses are offered in Spring 2024.
- The Department of Mathematics and Decision Science is proposing a concentration in Computational Mathematics. This concentration is designed to be taken as a double-major with Computer Science (though it can also be taken alone) as it would not add a burdensome number of classes to the CS degree. This is due to many of the core requirements intersecting in both majors. Furthermore, a technical degree in mathematics may help our CS majors in the job searches after graduation.
- The school of science are proposing to develop an environmental science program that would be a collaboration between the disciplines of chem, bio & phys.

Summer Academy



Artificial Intelligence Study in Earth Exploration (AISEE) Summer Academy is a five years (2023-2028) project funded by NASA. Clayton State University will host a NASA-themed summer program for minority high school students each year. This program will provide eight-day summer residential STEM camp exposing participants to college life, NASA research, Earth data, and Artificial Intelligence (AI).



High School STEM Day



March 28th the college hosted a "High School STEM exploration day" where over 300 students from 8 different high schools from surrounding counties, came to campus to explore career opportunities.



Events like the high school exploration day help the college to expand opportunities in the community.