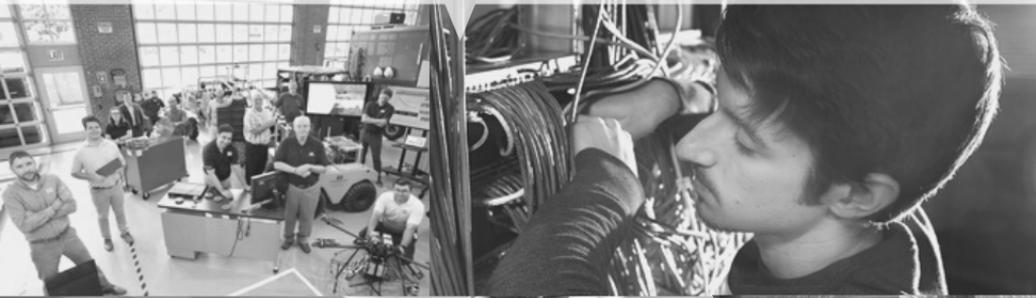


SEPTEMBER 2022 VOL. I

# THE CSE CORNER

UNDERGRADUATE NEWSLETTER FOR DEPARTMENT OF  
**COMPUTER SCIENCE & ENGINEERING**



**WHAT'S IN THIS  
MONTH'S ISSUE:**

**PREPARING FOR A  
NEW SEMESTER**



**MISSISSIPPI STATE**  
UNIVERSITY™

# A WELCOME LETTER FROM OUR DEPARTMENT HEAD, DR. SHAHRAM RAHIMI



"Welcome to the Department of Computer Science and Engineering (CSE) at Mississippi State University. CSE is one of the largest and fastest-growing departments in the Bagley College of Engineering and the university. The department strives to train the next generation of computer scientists and engineers who will be prepared to enter a rapidly growing technology field, which currently forms 63% of all STEM jobs in the nation.

Our department's faculty are globally recognized in interdisciplinary research and development. Our researchers focus on artificial intelligence and machine learning, cyber security, robotics, human computing interaction, big data analytics, augmented and virtual reality, software engineering, visualization and high-performance computing, providing our students with a wide variety of areas in which to research and learn. Many of our researchers have received prestigious awards and control several million dollars in active research funding. Our programs empower graduates to be at the forefront of the current and next waves of innovation. We hope you'll join us in shaping the future of technology."

*"Our programs empower graduates to be at the forefront of the current and next waves of innovation. We hope you'll join us in shaping the future of technology."*

# BUTLER HALL



*Butler Hall is home to the Department of Computer Science and Engineering. Research efforts concentrate on the areas of artificial intelligence, computer security and forensics, high performance computing, software engineering, and visualization and computer graphics.*

Computer Science and Engineering  
665 George Perry Street  
300 Butler Hall  
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Mississippi State, MS 39762  
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F: (662) 325-8997  
[office@cse.msstate.edu](mailto:office@cse.msstate.edu)

# UPCOMING EVENTS

## Fall 2022 Career Expo

Sept. 13 - 14th

12 - 4 p.m.

📍 The Mill at MSU Conference Center

# 177 EMPLOYERS ATTENDING



**ONE TEAM. ALL IN. FOR OUR BULLDOGS.**

EVENTS • RÉSUMÉS • COMPETENCIES •  
RAID • MOCK INTERVIEWS • NETWORK  
S • CAREER • CHOOSE A MAJOR • ASSE  
N • JOB • ETIQUETTE • GRAD SCHOOL  
ACCESS • R • WORKSHOPS • CAREER  
OP & INTER • ATION • JOB SE  
G • CAREER • ACCESS • R  
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& INTERVIE •  
• CHOOSE  
NING ETIQU

### Connections

This is your centralized site for finding and applying for jobs, learning about events, exploring careers, scheduling on-campus interviews, and more.

#### UTILIZING YOUR ACCOUNT

##### ACCESS YOUR ACCOUNT

- Go to [www.career.msstate.edu](http://www.career.msstate.edu)
- Hover over **Quick Links** tab
- Click **Connections**
- Click **Students/Alumni**
- Select **Current Students: Single Sign On**
- Log in using your **MSU NetID** and **password**

##### COMPLETE INFORMATION

- Select **My Account**, then select **Personal**. Review/edit your account information. At the end of each page, click **Save** to review information in each category – personal, academic, and privacy.

##### SEARCH FOR JOBS

- Select the **Jobs** tab

Use filter criteria to focus your search. You can save these searches as Job Alerts.

*Tip: Completing/updating your Career Interests (either when you first log in or at the bottom of My Account – Academic page) will help the system highlight the opportunities that meet your interests.*

##### UPLOAD YOUR RÉSUMÉS AND OTHER DOCUMENTS

- Select the **Documents** tab
- Select **My Documents**
- Click **Add New**

Enter a label name for your document (example: Albi Marks Résumé)

- Choose the document type, click **Choose File** and find the document
- Click **Submit** at the bottom of the page

Check that the document successfully converted to a PDF before navigating away from the document list page.



**MISSISSIPPI STATE UNIVERSITY**  
CAREER CENTER

Questions about this event? Contact Leslie Neal at [lneal@career.msstate.edu](mailto:lneal@career.msstate.edu)

# A BIG, WARM WELCOME TO OUR NEW FACULTY MEMBERS



**Dr. Jingdao Chen, Assistant Professor**

"I joined the Computer Science and Engineering faculty in August 2021. Working here has been exciting so far since I was able to teach a new class and also expand my research in robotics and AI. I am grateful for my colleagues here who are very friendly and supportive."



**Dr. Charan Gudla, Assistant Clinical Professor**

"I am thrilled to be a part of MSU's Computer Science and Engineering Faculty. Me and my wife like Starkville so far. Implementing active learning and effective teaching techniques is one of my goals, and I am passionate about sharing my research in cybersecurity and educating students to advance their skill sets."



**Dr. Adam Jones, Assistant Professor**

"When I had the opportunity to join Mississippi's flagship engineering university in Fall 2021, my family and I were ecstatic! We love MSU and the Starkville community. I teach and research topics related to virtual and extended reality, and everyone here has been very excited to learn more about them. We are looking forward to what the future holds!"



**Dr. Sudip Mittal, Assistant Professor**

"My research interests are Cybersecurity, AI, and Cyber-Physical Systems. Since I joined the Computer Science and Engineering (CSE) department in August 2021, I have been able to expand my research and teaching by working with passionate graduate and undergraduate students. The energy in the CSE department is just phenomenal."



**Dr. George J. Trawick, Associate Clinical Professor and Cyber Program Coordinator**

"I joined the CSE department in 2020. I have operational experience ranging from designing, implementing and maintaining classified networks to operating and managing the information assurance division for the U.S. Army's Human Resources Command."



**Dr. Stephen Torri, Associate Professor**

"I joined the Computer Science and Engineering faculty in March 2021. Working here has been exciting so far since I was able to rewrite the secure software engineering and software reverse engineering class to reflect industry best practices. I have started my research in software engineering and cybersecurity. I am grateful for my colleagues here who are very friendly and supportive."

# STUDENT SPOTLIGHT

The National Security Agency invited students from Center of Academic Excellence in Cybersecurity accredited colleges, Senior Military colleges, and US Cyber Command Academic Engagement Colleges to compete in the 2022 Hack the Port competition. The scenario was designed to increase knowledge, skills, and awareness of critical infrastructure cybersecurity and tactics and techniques used to defend and attack maritime and related industrial control, IoT, and IT systems. The goal was to highlight how the critical infrastructure sectors of the United States intersect at a maritime facility and how attackers may target these sectors to cause harm to the United States through businesses and infrastructure.

The Mississippi State University (MSU) team competed as a red team attacker attempting to compromise the various controls within the maritime port facilities. Each student enjoyed the event and walked away with a greater passion for cybersecurity.

Assistant professor Dr. Stephen Torri led the team made up of students Justin Pettiss, Zach Rayburn, Michael Shirah, Elwood Simpson, and David Wilson.



# CSE Hall of Fame

*A moment of recognition for our outstanding students and faculty to showcase their recent achievements.*



**Emma E. Wade**, a senior computer science major from Decatur, Alabama, was selected as a member of the Astronaut Scholarship Foundation's 2022 Astronaut Scholars Class in June. She was also one of two students from MSU selected for the Goldwater Scholarship, the nation's most preeminent undergraduate award for students in science, technology, engineering and math, or STEM fields.



**Dr. Maxwell Young**, an assistant professor in the CSE department, earned a Faculty Early Career Development (CAREER) award from the National Science Foundation (NSF) for \$404,492.



**Somayeh Bakhtiari Ramezani**, a doctoral student in the CSE department, was selected for the highly competitive Computational and Data Science Fellowship from the Association for Computing Machinery. Ramezani will receive \$15,000 annually to further her studies.

# ***MCKAY PREDICTIVE ANALYTICS AND TECHNOLOGY INTEGRATION LABORATORY EXCELLENCE ENDOWMENT***

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Mississippi State alumnus Lamar McKay has endowed support to the James Worth Bagley College of Engineering. This endowment will aid ongoing support benefitting infrastructure, personnel, travel funds, and more to support the Predictive Analytics and Technology Integration Laboratory (PATIL).



Department head Dr. Rahimi stated: "This contribution is pivotal to the expansion of predictive analytics research and its technology integration in the state of Mississippi, and I cannot express my gratitude enough for this very generous gift. I have no doubt that his contribution will boost the speed of discovery and technology development in the area of predictive analytics across the nation."

The CSE department's PATIL aims to target issues with data management, integration and analytics, in addition to predictive modeling and simulation. McKay's investment will help fund this groundbreaking lab and provide students with the opportunity to take part in research that greatly benefits not only their education but also the scientific industry as a whole.

# CSE GRADUATE PROGRAM

## ARE YOU READY TO TAKE THE NEXT STEP IN YOUR EDUCATION?



Dr. T.J. Jankun-Kelly  
*Associate Professor and  
Graduate Coordinator*  
319 Butler Hall  
662.325.7504  
tjk@cse.msstate.edu

There are three degrees in the graduate program for students to pick between:

- Master of Science in Computer Science
- Master of Science in Cybersecurity and Operations
- Doctor of Philosophy in Computer Science

Some graduate degrees are administered through other departments:

- M.S. and Ph.D. in Computer Engineering - Department of Electrical and Computer Engineering
- M.S. and Ph.D. in Computational Engineering - High Performance Computing Collaboratory
- Ph.D. in Engineering Education - College of Engineering.

# CSE DISTANCE EDUCATION

## INTERESTED IN EARNING YOUR GRADUATE DEGREE ONLINE?



Josie Guerry  
*Manager of Graduate and  
Distance Education*  
662.325.5923  
josie@bagley.msstate.edu

Check out the three distance education options that CSE offers:

- Master's in Cyber Security - requires 31 credit hours
- Master's in Computer Science - requires 31 credit hours
- Ph. D in Computer Science - requires 32 credit hours

If you are interested in applying for the upcoming spring semester, consideration begins in October. If you are looking to apply for Fall 2023, consideration begins in February.

*For more information, visit our website at  
[www.cse.msstate.edu](http://www.cse.msstate.edu)*

**2021 DATA**



OVER  
**800**  
UNDERGRADUATE  
AND GRADUATE  
STUDENTS



**135**

UNDERGRADUATE  
DEGREES AWARDED



**60+**

INTERNATIONAL  
STUDENTS



APPROXIMATELY

**110**

MASTERS AND PH.D  
STUDENTS



**24 FACULTY**

MEMBERS INCLUDING  
3 ENDOWED PROFESSORS



**21**

MASTERS AND PH.D  
DEGREES EARNED



**OVER \$8  
MILLION**

IN RESEARCH EXPENDITURES

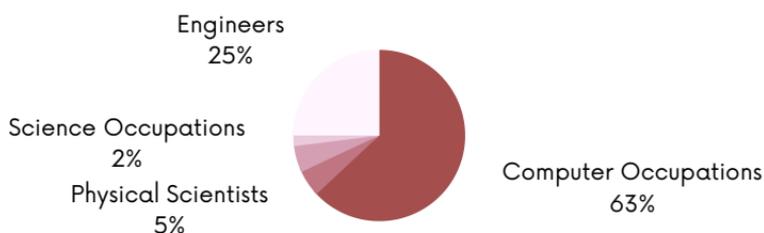


**\$50K+**

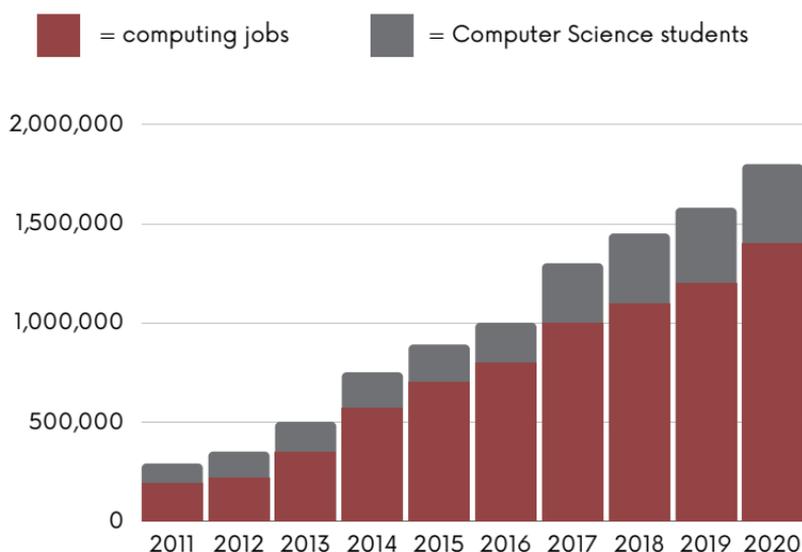
IN SCHOLARSHIPS

# CSE STATISTICS

**63% OF ALL NEW STEM JOBS ARE IN  
COMPUTER SCIENCE**



**THERE ARE 4 JOBS FOR EVERY COMPUTER  
SCIENCE GRADUATE, AND THIS NUMBER IS  
ONLY GROWING**



**COMPUTER SCIENCE IS A TOP-PAYING  
COLLEGE DEGREE AND COMPUTER  
PROGRAMMING JOBS ARE GROWING AT 2X  
THE NATIONAL AVERAGE**



## GIVE TO CSE

It is with the generosity of people like you that we are able to make the Department of Computer Science and Engineering the very best it can be.

To learn more about the positive impact you can make, please visit [www.msufoundation](http://www.msufoundation), scan our QR code, or contact us directly so we can address any questions you may have.

If you would like to make a contribution on the website listed above, simply enter our department in the "Designation" section of your donation.

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follow us on all platforms!



COMPUTER  
SCIENCE AND  
ENGINEERING