

APRIL 2024 VOL. 4

# THE CSE CORNER

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



**MISSISSIPPI STATE**  
UNIVERSITY™

# BUTLER HALL



**BUTLER HALL IS HOME TO THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING.**







**Research efforts concentrate on the areas of artificial intelligence, cyber 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  
P: (662) 325-2756  
F: (662) 325-8997  
[office@cse.msstate.edu](mailto:office@cse.msstate.edu)

# GTA OFFICE HOURS

📍 BUTLER 209

Check out the schedule to meet with your respective TA!

 <b>TA Office Hours</b> 		TA	COURSE	MON	TUES	WED	THURS	FRI
Adams, Jacob		2383	12:10 - 2:10 PM			12:30 - 2:30 PM		12:30 - 2:30 PM
Beerelli, Pranavi		1284 (05, 07, 09)	2:15 - 3:15 PM			2:15 - 4:15 PM	2:15 - 3:15 PM	
Davis, Toby		1384 (07 & 12)				1:30 - 3:30 PM		1 - 3 PM
Fereday, Garrett (Rhett)		4633, 4833	2 - 5 PM			2 - 5 PM		
Hossain, Md Elias		4283	2:30 - 3:30 PM		3:30 - 4:30 PM		3:30 - 4:30 PM	
Judy, Tirian		1384 (08, 10, 11)			12:30 - 2:30 PM	11 AM - 12 PM	5:25 - 6:25 in 103	
Kanduri, Abhliash		4214	1:15 - 3:15 PM		3 - 5 PM			
Lineberry, Litany		1011	9:05 - 11:05 AM		10:30 - 12:30 PM			
Maram, Rohini		1384 (06, 09, 13)			2:25 - 3:25 PM	9 - 11 AM	2:25 - 3:25 PM	
Matta, Deepak		1284 (06, 08, 10)	2:20 - 5:00 PM			11:10 AM - 12:30 PM		
Morla, Phalguni		3723			2 - 4 PM		2 - 4 PM	
Nanduri, Vishnu		4633, 4833	3:30 - 5 PM		11:30 AM - 1 PM	3:30 - 5 PM	11:30 AM - 1 PM	
Rashme, Tamanna		4733			11 AM - 2 PM		11 AM - 2 PM	
Reed, John		3183	11:30 AM - 1:30 PM			9:30 AM - 1:30 PM		
Saha, Swayanmijt		2213						12 - 6 PM (5 - 6 PM IN 103)
Tripathi, Himanshu		4153	11 AM - 12 PM	11 AM - 12 PM	11 AM - 12 PM	11 AM - 12 PM		
Willis, Derek		4714			1 - 3 PM		1-3 PM	

# MEET YOUR TUTOR

FOR CSE 1284 & 1384

 ROOM 103

**MON — FRI**  
**5 - 9 PM**

 ROOM 209

**MON & WED**

**9 - 10 AM**  
**1 - 3 PM**

**TUES & THURS**

**2 - 4 PM**

**FRI**

**9 - 10 AM**



# NEED HELP WITH CSE 1284?

MEET WITH YOUR TAs  ROOM 209



SECTIONS 05, 07, 09

**MONDAY**

2:15 - 3:15 PM

**WEDNESDAY**

2:15 - 4:15 PM

**THURSDAY**

2:15 - 3:15 PM



SECTIONS 06, 08, 10

**MONDAY**

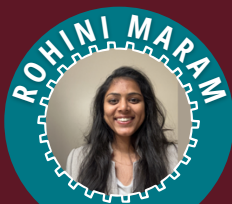
2:20 - 5 PM

**WEDNESDAY**

11:10 AM - 12:30 PM

# NEED HELP WITH CSE 1384?

MEET WITH YOUR TAs  ROOM 209



SECTIONS 06, 09, 13

**TUESDAY**

2:25 - 3:25 PM

**WEDNESDAY**

9 - 11 AM

**THURSDAY**

2:25 - 3:25 PM



SECTIONS 07 & 12

**WEDNESDAY**

1:30 - 3:30 PM

**FRIDAY**

1 - 3 PM



SECTIONS 08, 10, 11

**TUESDAY**

12:30 - 3:30 PM

**WEDNESDAY**

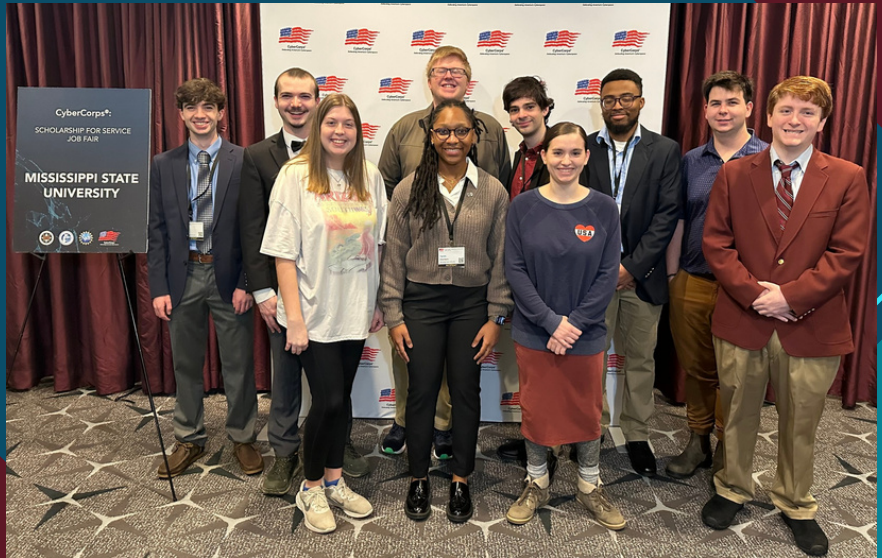
11 AM - 12 PM

**THURSDAY**

5:25 - 6:25 PM

(IN 103 INSTEAD)

# STUDENT SPOTLIGHT



## ***STUDENTS IN THE CYBERCORPS:***

***Scholarship for Service program traveled to Washington, DC to participate in the program's annual job fair! Students met with and attended interviews with a variety of federal agencies.***

***Congratulations to those receiving internship and job offers!***

# STUDENT SPOTLIGHT



## **KENNEDY KEYES**

**SENIOR SOFTWARE ENGINEERING STUDENT**

From her impressive research work with CAVS to securing a coveted spot in the Amazon Summer Undergraduate Research Experience at UCLA, and recently adding the prestigious Mississippi Auto Manufacturers Association scholarship to her list of accolades, Keyes continues to excel within the CSE department!

*Check out her much-deserved feature on MSU's Our People at [msstate.edu/our-people/2024/02/kennedy-keyes](https://msstate.edu/our-people/2024/02/kennedy-keyes)*



# ***ESPORTS VICTORY***

***We are so proud of our Esports team for taking the win over Ole Miss at the 6th Annual Esports Egg Bowl on January 27th. Our team ended with a 5-2 advantage with wins in Overwatch2, Smite, League of Legends, Super Mario Smash Bros. Ultimate, and Valorant.***

***Congratulations MSU Esports!***



# CSE Hall of Fame



**DR. ADAM JONES,**  
assistant professor and  
Hi5 Lab director, helped  
co-organize the 2023  
State Innovate Hackathon  
with media specialist  
Melissa Grimes.



## 2023 STATE HACKATHON



# NSF CAREER AWARD

**DR. ADAM JONES**



***CONGRATULATIONS, DR. JONES!***

Assistant Professor Dr. Adam Jones has been awarded the highly prestigious National Science Foundation CAREER Award. This well-deserved honor not only highlights Dr. Jones's dedication and expertise but also solidifies his position as a leader in the computer science and engineering field.

# A BIG, WARM WELCOME TO OUR NEW FACULTY MEMBERS

**DR. NOOR AMIRI,**  
Assistant Research Professor



*"I am pleased to have joined the Computer Science and Engineering faculty in January 2024. My research focus lies in the fields of Artificial Intelligence (AI), Machine Learning, Neuroscience, Image processing and computer vision. Additionally, I am actively expanding my investigations into Neural Networks (NN) and Predictive Analytics. I am grateful for the unwavering support from my colleagues here."*

**DR. JESSIE COSSITT,**  
Assistant Teaching Professor



*"I joined the Computer Science and Engineering faculty in January of 2024 as an assistant teaching professor. I am passionate about helping students learn and achieve their goals, and I feel incredibly privileged to be doing so alongside the fantastic faculty and staff of our department."*

# A BIG, WARM WELCOME TO OUR NEW STAFF MEMBERS

**AMANDA DAVIS,**  
Project Coordinator



*"I am excited to start as the Project Coordinator for the CSE! I am looking forward to learning more about the amazing research we are doing in CSE and helping our faculty with their grant management. I am also delighted to work with our graduate students as they proceed through our programs."*

**ADYSON POOLE,**  
Academic Records Assistant



*"I joined the Computer Science Department as a student worker in Fall 2022. I graduated from Mississippi State in May 2023 with my Bachelor's. I left campus for a few months post-graduation, and now, I'm glad to be back as a full-time employee. I can't wait to help our department grow through outreach and meet all the students I will be advising!"*





# GRADUATION RECEPTION

**THE CSE DEPARTMENT IS PROUD TO HOST A GRADUATION RECEPTION FOR OUR UNDERGRADUATE AND GRADUATE STUDENTS. FAMILIES AND FRIENDS ARE ENCOURAGED TO ATTEND AND CELEBRATE THIS MOMENTOUS OCCASION WITH US!**

**If you're planning on graduating in May, ensure that you've applied for graduation. Please keep an eye out for an email from Amanda Davis or Adyson Poole in the coming weeks!**





## Ghost Robotics Vision 60 Q-UGV



***WE ARE SO EXCITED TO SHARE THE ARRIVAL OF THE CSE'S LATEST ROBOT ACQUISITION, GHOST ROBOTICS VISION 60 Q-UGV. (PICTURED ON THE LEFT)***

***THE DEPARTMENT WILL BE USING THE ROBOT TO CONDUCT RESEARCH IN AUTONOMOUS QUADRUPED CONTROL, ROUGH TERRAIN NAVIGATION, AND LANGUAGE MODELS FOR ROBOTICS.***

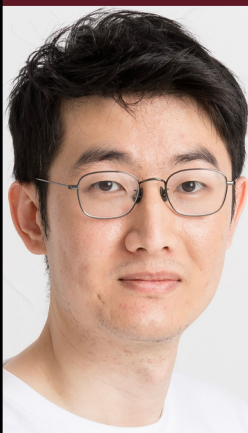
# CSE Speaker Seminar Series

*THE CSE DEPARTMENT HAS HOSTED FOUR SUCCESSFUL TALKS FOR OUR ONGOING SPEAKER SERIES THIS PAST SEMESTER.*

**Check our social media to keep an eye out for announcements about the upcoming speakers!**

## **DR. TIANYU ZHANG**

***POSTDOCTORAL FELLOW IN THE CSE DEPARTMENT  
AT THE UNIVERSITY OF CONNECTICUT***



Dr. Zhang's talk was titled "Towards Deterministic and Reliable Real-Time Cyber-Physical Systems" and discussed his recent works on the design of real-time resource management frameworks in real-time wireless sensor-actuator systems (WSANs) and real-time 5G New Radio (NR).

## **MAXWELL TAYLOR**

***PH. D CANDIDATE IN THE CSE DEPARTMENT  
AT OHIO STATE UNIVERSITY***



Taylor's talk, titled "Trustworthy UAVs: A Holistic Approach", addressed the different technologies that can be used to improve UAV trustworthiness.

# CSE Speaker Seminar Series

## **DR. NISHA PILLAI**



**RESEARCH SCIENTIST IN THE CSE DEPARTMENT  
AT MISSISSIPPI STATE UNIVERSITY**

Dr. Pillai's presentation stressed the importance of tackling foodborne pathogens and antimicrobial resistance in poultry production by integrating AI and optimization techniques.

## **DR. VINI CHAUDHARY**



**RESEARCH ASSOCIATE IN THE DEPARTMENT OF  
ELECTRICAL AND COMPUTER ENGINEERING AT  
NORTHEASTERN UNIVERSITY**

Dr. Chaudhary's talk explored leveraging machine learning for advanced communication networks, including anomaly detection, spectrum sharing, intelligent routing, and connectivity enhancement.



# ABOUT AI LETTERS



***Introducing AI Letters, the new open-access journal by Mississippi State University's Department of Computer Science and Engineering. Led by Department Head Dr. Shahram Rahimi and Assistant Research Professor Dr. Noorbakhsh Amiri Golilarz, AI Letters fills a critical void in AI research publications. With a two-page format, it caters to both academia and industry, employing a fast review process for swift publication. AI Letters seeks to engage a global audience, welcoming submissions from students, faculty, and industry professionals.***



**Scan the QR code or visit  
[ail.sigmaxplore.com](http://ail.sigmaxplore.com) to learn more  
and to submit your research!**

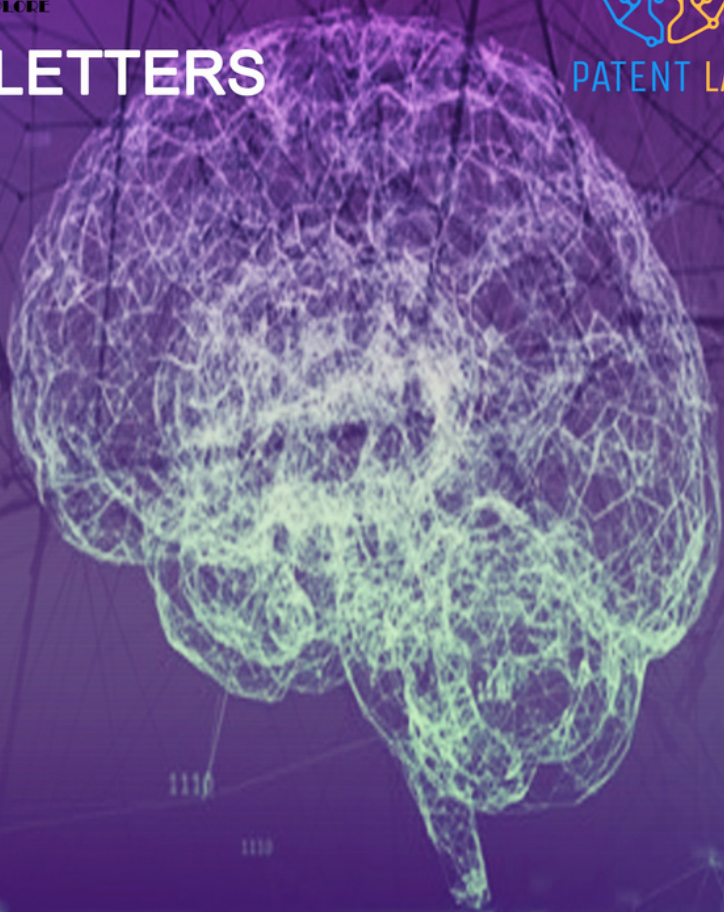
# SIGMA X P L O R E



## AI LETTERS



PATENT LAB





## CALL FOR PAPER AI LETTERS



**AI Letters** is now accepting submissions for its upcoming volumes. We invite all researchers, scholars, and professionals in the field of artificial intelligence to contribute their original research, insights, and theories.

### Topics of Interest

- AI and applications
- Machine Learning
- Robotics
- Natural Language Processing
- Computer Vision, and more ...

### Submission Guidelines

- All submissions must be original and not under consideration elsewhere.
- Submissions should push the boundaries of what is possible in AI, challenge existing paradigms, and offer fresh perspectives.
- Each paper should span a maximum of two pages, allowing for the succinct presentation of significant findings or ideas.
- All submissions will undergo a rigorous double-blind peer review process to ensure fairness and eliminate bias.

**AI Letters** is committed to fostering a global community of AI enthusiasts, united by a shared passion for knowledge and discovery. We look forward to your contributions and to the exciting advancements in AI that we will discover together.

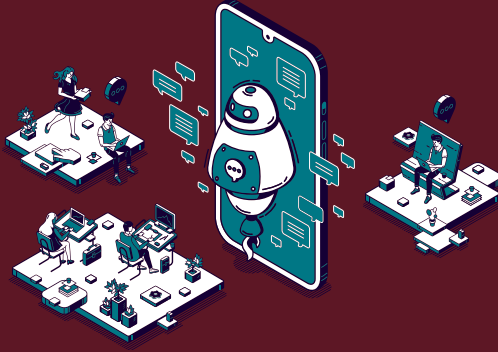


For more information on submission guidelines and process, please visit our website. We look forward to receiving your submissions!  
Web: <https://patent.cse.msstate.edu/ai-letters/>

Scan here to visit AI Letters



# VIRTUAL DESKTOP (VD)



## WHAT IS A VIRTUAL DESKTOP?

Our Virtual Desktop Infrastructure (VDI) enables users to remotely access virtual computers without requiring significant resources on their local devices. The virtual desktop runs on a server maintained by the Computer Science and Engineering Department, allowing users to connect and use the virtual desktop from anywhere.

## WHY USE A VIRTUAL DESKTOP?

**ACCESSIBILITY:** Virtual desktops can be accessed from any machine, enabling remote access to data and resource-heavy programs.

**UNIVERSITY MANAGEMENT:** Managed by the university, which makes it compatible with exclusive software available only on university-owned devices.

**SCALABILITY:** Leveraging our server-grade hardware, virtual desktops can tap into available resources, ensuring the smooth operation of resource-intensive programs. Additional resources, such as RAM or VRAM, can be seamlessly incorporated as needed.

**VISIT [CSE.MSSTATE.EDU/VDI/](https://cse.msstate.edu/vdi/) FOR MORE INFO**

**TO ACCESS:**



**[CSE-VDI-01.CSE.MSSTATE.EDU/](https://cse-vdi-01.cse.msstate.edu/)**





# STUDENT ORGANIZATIONS

## CSE AMBASSADORS

The CSE Ambassador Team assists the department head and assistant department head with recruiting and retention events. These students represent the department to prospective students and their parents. Leadership skills and reliability are a must for these volunteer positions.

Contact our associate department head Dr. Andy Perkins if interested in joining: [perkins@cse.msstate.edu](mailto:perkins@cse.msstate.edu)

## ASSOCIATION FOR COMPUTING MACHINERY & ASSOCIATION FOR COMPUTING MACHINERY - WOMEN

The MSU student Chapter of the ACM exists to

- To promote an increased knowledge of the science, design, development, construction, languages, and applications of modern computing machinery.
- To promote a greater interest in computing machinery and its applications.
- To provide a means of communication between persons having interest in computing machinery.

For more information, contact faculty advisor and department head Dr. Shahram Rahimi at [rahimi@cse.msstate.edu](mailto:rahimi@cse.msstate.edu)

## WOMEN IN CYBER SECURITY CHAPTER

Women in Cyber Security (WiCyS) is the premier organization with national reach dedicated to bringing together women in cybersecurity from academia, research and industry to share knowledge, experience, networking and mentoring. Our chapter Advisor is Mrs. Kortni Neal. Our student chapter holds our bi-monthly meetings on 2nd and 4th Tuesdays at 5P.M. in Butler Hall where we do hands-on activities such as how to set up a HomeLab and we explore various cyber security tools. We also have guest speakers in the Cyber Security field come and speak. For students interested in attending meetings, we send out a flyer the week before. We are open to all and welcome our male allies to join. Women In Cyber Security offers professional development and internship opportunities. We encourage members to join the National WiCyS organization for maximum benefits.

Students can join the student chapter through CampusLabs: [msstate.campuslabs.com/engage/organization/women-in-cyber-security](https://msstate.campuslabs.com/engage/organization/women-in-cyber-security)

## CYBER SECURITY CLUB AT MSU

The Cyber Security Club at MSU's main goal is to further our collective knowledge in the field of Cyber Security. This goal will be reached by studying current exploits, competing in capture-the-flag competitions, and designing and researching our own security challenges.

Faculty Advisor: Dr. Stephen Torri at [storri@cse.msstate.edu](mailto:storri@cse.msstate.edu)

## MSU ESPORTS

MSU Esports is committed to cultivating a culture of camaraderie among gamers, competing in collegiate esports at the highest levels of play, instilling exceptional character and developing professional skills in its membership. MSU Esports houses 20+ competitive rosters over 17 different esports titles where they compete nationally in leagues under NACE, NECC, Tespa, CRL, CSL, and AVGL.

If interested, reach out to [esports@cse.msstate.edu](mailto:esports@cse.msstate.edu)

## ACM-SIGHPC (SPECIAL INTEREST GROUP HIGH PERFORMANCE COMPUTING)

A special interest group of ACM, SIGHPC that provides hands on learning in high performance computing, access to parallel computing clusters, and invaluable future experience in industry and research. The group also offers travel and conference opportunities off campus:

- Practice and Experience in Advance Research Computing (PEARC). Check out their website at [pearc.acm.org/pearc23/](http://pearc.acm.org/pearc23/)
- Super Computing (SC). To learn more, visit: [sc23.supercomputing.org/](http://sc23.supercomputing.org/)

Membership is open to any MSU student interested in providing equitable access to computing education. CS Student Kourtney Atwell organized the formation of the chapter. You can request Dr. Charan Gudla or Mike Navicky to be put on the mailing list at: [cse-acm-sighpc@cse.msstate.edu](mailto:cse-acm-sighpc@cse.msstate.edu)

## ACM SIG AI: ARTIFICIAL INTELLIGENCE CLUB

The AI Club, in affiliation with ACM Special Interest Group on Artificial Intelligence (ACMSIG-AI), invites undergraduate and graduate students who are passionate about cutting-edge technologies in Artificial Intelligence (AI), including but not limited to: Machine Learning, Natural Language Processing, Computer Vision, Robotics.

Co-advisors:

Zhiqian Chen ([zchen@cse.msstate.edu](mailto:zchen@cse.msstate.edu))

Dr. Jingdao Chen ([chenjingdao@cse.msstate.edu](mailto:chenjingdao@cse.msstate.edu))



# VICEROY

**Mississippi State University is honored to lead a partnership of three universities – MSU, Augusta and Clark Atlanta (VICEROY Southeastern Cohort - VSEC) as part of a national level effort to improve our nation’s cyber workforce.**

**VICEROY Scholars Program is made possible through an award from the Air Force Research Laboratory Information Directorate in partnership with Griffiss Institute and the Office of the Undersecretary of Defense.**

**VICEROY Scholars Program is not a scholarship. VICEROY is an incentive-based program. Students accepted into the program are incentivized to participate in cyber education and experiential learning opportunities.**

**VICEROY Scholars Program is open to sophomores and juniors who are U.S. Citizens and are interested in service to national security.**

**If accepted to be a VICEROY scholar, students will sign a commitment agreement stating they will actively participate in the program. However, recipients are NOT obligated to any government service commitment.**

**Visit [cse.msstate.edu/viceroy/](https://cse.msstate.edu/viceroy/) for more information on how to apply.**



# **CSE REDESIGNATED AS A CENTER OF ACADEMIC EXCELLENCE IN CYBER OPERATION**



**MSU RENEWS ITS STATUS AS A NATIONAL CENTER OF ACADEMIC EXCELLENCE IN CYBER OPERATIONS BY THE NSA, MARKING ITS ONGOING COMMITMENT TO CYBERSECURITY EDUCATION AND RESEARCH!**

With this designation since 2001, MSU stands out as one of the few universities holding all three NSA cyber designations. Offering comprehensive programs, including CyberCorps, MSU equips students with skills vital for protecting critical systems. Faculty dedication and innovative research contribute to MSU's success, preparing students for future cybersecurity challenges across all sectors. Collaboration with the NSA and other institutions underscores MSU's role in advancing cybersecurity education nationally.

# 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?**



Daphne Knox  
Manager of Graduate  
and Distance Education  
662.325.5923  
knox@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

**TOP 10 BEST ONLINE MASTER'S IN  
CYBERSECURITY PROGRAMS FOR 2023  
BY THE CYBERSECURITY GUIDE**



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

**2023 DATA**



**OVER  
1,150  
UNDERGRADUATE  
AND GRADUATE  
STUDENTS**



**OVER**

**130**

**UNDERGRADUATE  
DEGREES AWARDED**



**80+**

**COUNTRIES REPRESENTED BY  
INTERNATIONAL STUDENTS**



**APPROXIMATELY**

**32**

**MASTER'S AND PH.D  
DEGREES AWARDED**



**30 FACULTY**

**MEMBERS INCLUDING  
4 ENDOWED PROFESSORS**



**21**

**MASTERS AND PH.D  
DEGREES EARNED**



**OVER \$8  
MILLION**

**IN RESEARCH EXPENDITURES**

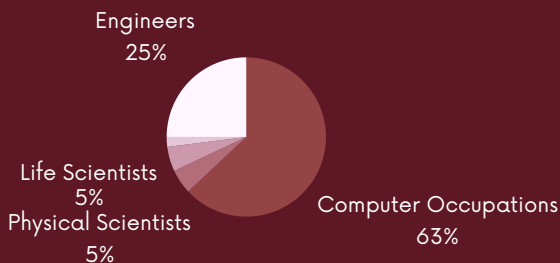


**\$70K+**

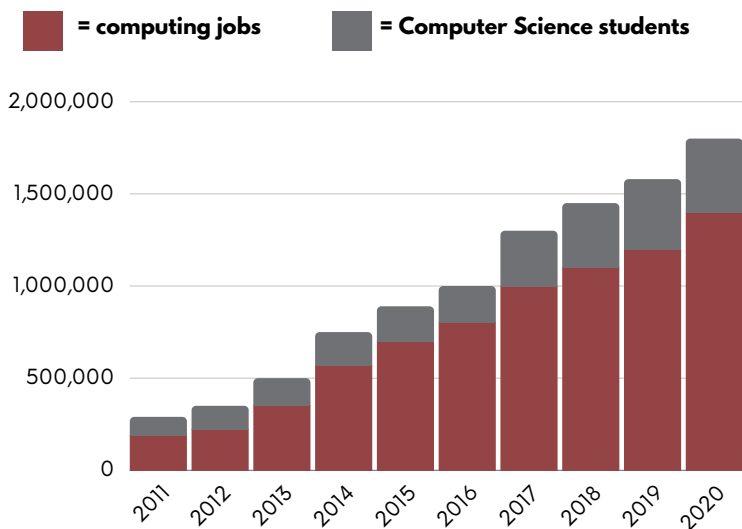
**IN SCHOLARSHIPS**

# 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.

**Dr. Shahram Rahimi**  
Department Head  
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[rahimi@cse.msstate.edu](mailto:rahimi@cse.msstate.edu)

**Bennett Evans**  
Director of Development  
Bagley College of Engineering  
(662) 325-0386  
[bevans@bagley.msstate.edu](mailto:bevans@bagley.msstate.edu)



**KEEP UP WITH US!**



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**Scan the QR code to  
follow us on all platforms!**

