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UTSA celebrated Women's History Month in March. Toward that, the Computer Science Department would like to dedicate the Spring 2023 Newsletter to our female students! We highlight Ms. Umama Tasnim. A Master of Science Cybersecurity Science major at UTSA.

Umama is currently working with Dr. John Quarles at SAVE lab as a graduate research assistant. Her research involves Cybersickness prediction individualization. According to Umama, "In virtual reality environments, CS prediction has become one of the key research topics. Our research aims to investigate how to personalize cybersickness prediction for an individual, an area that has gotten less attention than general cybersickness prediction models".

Why did you choose UTSA?

I am a MS in computer science student at the University of Texas at San Antonio. There are a variety of reasons why I chose UTSA. Firstly, the University of Texas at San Antonio has a strong reputation for academic excellence, particularly in the areas of computer science and engineering. Additionally, UTSA offers a range of research opportunities and extracurricular activities that align with my interests and goals. The campus itself is also beautiful, and the community is diverse and welcoming. Overall, I felt that UTSA was the best fit for me both academically and personally.



Welcome to the Spring 2023 edition of the Computer Science Newsletter. First and foremost, I would like to extend my congratulations to our students, faculty, and staff for safely and successfully completing the academic year of 2022-2023.

It was an honor to serve as the interim department chair during this academic year, and I am grateful for the opportunity to work with our highly talented and dedicated students, faculty, and staff. I would also like to express my sincere gratitude to all our leadership for the guidance and support during this time of transition.

We are excited to announce that we have successfully recruited three new tenure-track faculty members and a new Chair for the next academic year of 2023-2024. We believe they will greatly enhance the Computer Science Department's visibility and expertise in specific areas of AI/ML, Data Sciences, and Computer Science Education. In addition to contributing to cutting-edge research initiatives in these fields, the new faculty will enable us to offer even more comprehensive and innovative coursework to better prepare our students for the future job market and industry that is rapidly evolving due to the developments in AI/ML techniques.

In this newsletter, you will find information on many new initiatives, programs (e.g., BS in Software Engineering), updates on ongoing projects, and features on our faculty and students. We also take this opportunity to congratulate our Spring 2023 graduates and wish them all the best in their future careers.

Thank you for your continued support, and we look forward to a successful 2023-2024 academic year with you.

Dr. Turgay Korkmaz



Why did you choose Computer Science?

I chose computer science because of its limitless potential to solve problems and create new technologies. I have always been fascinated by the power of computing and how it can be applied in various fields to improve people's lives. I also enjoy the challenge of working with complex systems and finding creative solutions to difficult problems.

What advice do you give women in Computer Science?

My advice to women in computer science is to have confidence in their abilities and to not be intimidated by the male-dominated field. Seek out mentors and allies who can support you and provide guidance along the way. Also, don't be afraid to speak up and advocate for yourself and others in the workplace. Remember that diversity and inclusivity are essential for innovation and progress in the tech industry.

How do you spend your free time?

In my free time, I love to travel and explore new places. Whether it's camping in the wilderness or discovering a new city, I find joy in experiencing new cultures and environments. Additionally, I am an avid reader and enjoy delving into a variety of genres and authors. When I'm not on the road or lost in a book, I also enjoy experimenting in the kitchen and trying out new recipes. Cooking has become a creative outlet for me and allows me to relax and unwind after a busy day. Overall, I believe in the importance of balancing work and cherish the moments when I can indulge in my hobbies and passions.

***What are your plans after graduate school?***

After completing my MS degree at UTSA, I have decided to pursue a PhD degree in the same field. I plan to apply for the PhD program at UTSA in Spring 2024. Initially, I did not have plans to pursue a PhD, but after working on research projects with Dr. Quarles, I became deeply interested in the field and realized the potential for further exploration and innovation. With a strong passion for research and a desire to contribute to the field of Computer Science, I am excited to embark on this new journey and continue my academic pursuits at the highest level.



... " don't be afraid to speak up and advocate for yourself and others in the workplace. Remember that diversity and inclusivity are essential for innovation and progress in the tech industry"

Computer Science Highlights & Accomplishments 2022-2023 Grants and Awards

Secure Federated Learning at the Tactical Edge; Palden Lama; Rajendra Boppana; \$149,850.00; Sponsor: Army Research

Academia Involvement in Community Cybersecurity; Rajendra Boppana, Greg White, Philip Menard, \$146,564.00; Sponsor: National Science Foundation

CONNECT- the CONSortium on Nuclear sECurity Technologies; " Elizabeth Sooby, Amanda Fernandez, Kelly Nash, Miltiadis Alamaniotis, Matthias Hofferberth, Harry, Millwater, Christopher Reddick, Arturo Montoya Rodriguez; \$4,999,989.00; Sponsor: US Department of Energy

MITRE Data Science Boot camp; Jianwei Niu, Amanda Fernandez, Wei Wang, Keying Ye; \$50,000.00; Sponsor: The MITRE Corporation

EAGER: Studying Social Engineering Attacks Targeting Vulnerable Refugee Populations; Murtuza Jadliwala; \$132,653.00; Sponsor: Wichita State University

CCRI: New: ScooterLab A Programmable and Participatory Sensing Testbed using Micromobility Vehicles; Murtuza Jadliwala; "Sushil Prasad, Greg Griffin; \$1,713,162.00; Sponsor: National Science Foundation

Scuba Phase II; Jeffrey Prevost; Paul Rad; \$398,896.00; Sponsor: Sandia National Lab

Collaborative Research: HCC: Medium: HCI in Motion – Using EEG, Eye Tracking, and Body Sensing for Attention-Aware Mobile Mixed Reality; John Quarles; Kevin Desai; \$457,105; Sponsor: National Science Foundation

BRAIN Initiative: Hierarchical Event Descriptors (HED): A System to Characterize Events in Neurobehavioral Data; Kay Robbins; Sponsor: National Institutes of Health

EAGER: DCL: SaTC: Enabling Interdisciplinary Collaboration: Studying Social Engineering Attacks Targeting Vulnerable Refugee Populations; Menon, Murtuza Jadliwala; \$296,470; Sponsor: National Science Foundation

CRII: HCC: 3D Hand & Full-Body Pose Estimation in Telehealth for Children with Autism; Kevin Desai; \$174,368; Sponsor: National Science Foundation

New Venture Fund: Capacity Accelerator Network: Building an Open, Modular, Experiential, Data Science Social Impact Curriculum Mitigation in the Presence of Malicious AI Attacks; David Mongeau, Rocky Slavin, Jianwei Niu; \$115,000; Sponsor: The New Venture Fund

Support/Mentor Undergraduate STEM Female Students with Research-focused Activities; Anandi Dutta; \$22,000; Sponsor: Google Research

"Evolution for a secured path using NexGen firewalls" in the IEEE Sponsored OPJU INTERNATIONAL TECHNOLOGY CONFERENCE On Emerging Technologies for Sustainable Development (8-10 Feb 2023).; R. Banoth

**Congratulations Computer Science Faculty
The University Excellence Awards**

UTSA faculty plays a leading role in the university's mission to advance knowledge through research and discovery, teaching and learning, and service and community engagement. Recognizing and celebrating the achievements of faculty who have excelled in teaching, research or service is an important step in the journey to become a premier research university.

Congratulations !

Dr. Rocky Slavin received the President's Distinguished Achievement Award for Teaching Excellence.

Dr. Wei Wang received the President's Distinguished Award for Research Achievement.

We also wanted to take a moment to recognize and congratulate several of our colleagues who have recently received awards for their outstanding contributions to our graduate programs.

Dr. Ravi Sandhu, Outstanding Graduate Mentor Award

Dr. Dakai Zhu, Outstanding Graduate Advisor of Record Award

Mrs. Susan Allen, Outstanding Graduate Program Coordinator Award

Dr. Rifatul Islam, Outstanding Dissertation Award

Jishnu Banerjee, Outstanding Graduate Teaching Assistant Award



Dr. Rocky Slavin



Dr. Wei Wang

The Department of Computer Science would also like to thank all of the faculty and staff nominated for all the incredible work, dedication and commitment you have exhibited throughout the year. We appreciate all you do for the program, for our students, and for the university.

**Staff Introduction:
The Computer Science Department
welcomes Karina Rojas to UTSA!**



Karina Rojas recently joined the Department of Computer Science in March 2023 as the new Student Development Specialist I and will be responsible for assisting Computer Science Masters students with registration, approvals and petitions, and departmental processes.

Karina graduated with her Bachelor of Arts in English with a concentration in Professional Writing in Spring 2022 from UTSA.

In her free time, Karina likes to collect vinyl records, bake, and enjoys spending time with her two cats —Jose Antonio and Autumn.



Spring 2023 Graduate Social

A strong support system and social networks are important when navigating graduate school. Student socials and student networking events allow students to form common bonds, discuss shared interests and to develop new relationships.

The Computer Science Department held its Spring 2023 Graduate Social on February 22, 2023. Students met in the PhD Common Room for games, food, laughs and fun!



Like *UTSA CS GRAD* on Facebook: <https://www.facebook.com/UTSACS>



Student Spotlight: Elijah Moya, Computer Science Major President of ACM Student Organization *Celebrate Latino Voices*

Why did you choose UTSA?

I chose UTSA because I wanted to stay close to home. As well, I had heard from other friends in the grades above me that UTSA was a rising university in terms of reputation.

What do you like most about UTSA?

UTSA's culture is unmatched. Having traveled to universities across Texas for various hackathons and competitions over the past two years, I have yet to encounter computer science students with as much school spirit as those at UTSA. The diversity on campus also provides amazing opportunities to learn about the world around me. Additionally, our recent R1 status as a university offers students the chance to be a part of cutting-edge research and pursue exciting career opportunities.



Why did you choose Computer Science?

Growing up, I always leaned towards the technology side of the world. My dream job always included being a video game developer because of the large impact games had, and still have, on me. When I had the opportunity to take computer science in high school, my teacher, Dr. Khan, truly sparked that fire in me to chase after a career in computer science when I went to college. Coming to UTSA, I did start as a cybersecurity major in the College of Business. However, I knew I wanted to code right away, so I switched over to computer science after one semester. Switching to computer science also granted me the opportunity to be a part of a community here at UTSA, which is that of ACM.

How did you become involved in ACM?

COVID-19 greatly impacted my college life, and due to online classes, I missed out on the opportunity to make long-lasting friendships during my first two years of college. But around my fourth semester, I realized that I wanted to do more than just attend classes, complete homework, and take tests. I wanted to make a difference at UTSA by helping students discover amazing opportunities in the field of technology. That's when I joined ACM as a junior officer under Vanessa Rivera, the 2021 projects officer, and learned about the organization's workings. After gaining valuable experience, I ran to become ACM's Membership Officer for the 2021-2022 academic year.

Do you recommend students join ACM, or a student organization? Why?

Join ACM! Being a part of a community on a college campus makes you more engaged as a student. I will add that your participation in a student organization does not need to be anything momentous. Being a regular attendee at weekly meetings makes UTSA a better place for everyone as it grows organizations outreach and community. When I was a lonely freshman cyber security major at UTSA, I did not have or know of a community for me to be a part of. Now, I speak with my fellow peers in classes and at major events and hear about organizations like CompTIA, CSA, or Women in Cyber, and the amazing communities they are building because of the opportunities they provide to students.

Do you recommend that students do an internship? Why?

Is there only one path to success in computer science? The answer is both yes and no! While there are many traditional routes such as internships at top tech companies, there are also other valuable opportunities available. For example, Research Experiences for Undergraduates (REUs) provide students with little to no experience on their resume the chance to work in university research labs and develop innovative technologies. Building your own project over a summer can demonstrate your unique skills and interests to future employers. Volunteering with organizations that teach programming to students in disadvantaged communities can also broaden your skill set and enhance your resume. Everyone's college journey is different, and what works for one person may not work for another. While some students may find success in landing a software engineering internship in their sophomore year and receiving a full-time offer by senior year, others may discover their passion for research through an REU and pursue a PhD in a hyper-specific area of computer science. Don't limit yourself to one path; explore all the opportunities available to you.

*For the latest department news updates, visit our website at <https://www.utsa.edu/sciences/computer-science/>
Or follow us on social media*

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groups/5061256/



Instagram
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UTSA COMPUTER SCIENCE WELCOMES NEW FACULTY

Dr. Murtaza Siddiqi, Assistant Professor of Instruction



Dr. Murtaza received his Ph.D. and Post-doctoral at Yeungnam University, South Korea. His Ph.D. dissertation was titled 'An Effective and Efficient NIDS Framework Based on the Fusion of Augmented Feature Selection and Image Processing'. Dr. Murtaza's research interests are in Cybersecurity, Machine Learning, Network Intrusion detection systems (NIDS) and Social Engineering based cyber-attacks.

UTSA Computer Science Faculty Spotlight- Getting to Know Our Faculty

Juan Valdez is a faculty member with the Computer Science Department at UTSA. Juan is an Assistant Professor of Practice, and graduate from St. Mary's University. Mr. Valdez has been with UTSA since 2021.

Q & A Session with Juan Valdez:

What did your journey to UTSA look like?

My journey to UTSA is 20+ years in the making. I have always known that I wanted to teach later on in my career. 5 years ago, I realized that I was ready to make my transition and after 2.5 years at UIW I was fortunate enough to find a teaching position at UTSA. I actually have my son to thank for the heads up; he was the one that notified me that UTSA was hiring and told me that I would be a good fit, so here I am.

What are some of the notable projects that you've been involved in, at or outside of UTSA?

This semester I started providing guidance to a graduate thesis dealing with Windows malware detection; it's very exciting and I look forward to being able to help out wherever I can in this and other projects!

What advise do you have for students going into the job market?

The current job market for technology jobs is full of doubt; however, there is an opportunity. In order to make yourself more a more attractive job candidate, make sure you have a wide range of skills. Also, LINUX, it's a must, know it better than you know yourself!

What do you enjoy most about your area of study?

I love that as computer scientists, we can learn something and actually begin to try it out unlike our peers in the medical field, for example, they cannot just start to cut into people or start to treat people without huge issues. I also love that our work is needed everywhere, in every industry.

What do you hope that students gain from your classes and coursework?

I hope that my students gain an understanding of how these concepts they are learning in all of their previous courses are needed in my course though practice and application.

What is your proudest moment with the College of Sciences?

As a professor, I always want to improve my teaching abilities for the benefit of the students. In my first semester, in one of my high-level courses, I had a student email me at the end of the semester. This student started the email by saying how he hated the way I taught the course and how I structured the course. Nevertheless, he said he followed through and by the end of the semester; he had four job offers focused exclusively on the topics covered in class. He credited the course and his ability to learn and apply the concepts to these job offers and wanted to apologize and thank me for what I did for him and for the students. I get so much joy from reading these types of emails, and I love that I get them each and every semester. I am grateful for this opportunity at UTSA.

What do you enjoy most about being a professor at UTSA?

I enjoy interacting with students, in class and outside of class. I love hearing their questions and being a small part of their professional journey. I love that students are actually here because they want to learn and grow. Their desire to learn gives me energy and makes teaching fun and exciting.

How would you spend your ideal Saturday?

My ideal Saturday is spent tinkering in my lab, playing with new operating systems and build computers, working on malware reverse engineering. I am one of the fortunate few that there is no difference between who I am and what I do.

UTSA ScooterLab receives \$1.7M NSF award to deploy a fleet of data collecting e-scooters

Reprinted from UTSA Today

MARCH 2, 2023 — When a speedy campus scooter nearly collided with Murtuza Jadliwala, he had an epiphany. The micro-mobility form of transportation could be a vehicle for change.

Scooters carry people as well as sensors—sensors that can collect a wealth of data. This data is key to improving the quality of life. With that in mind, Jadliwala, an associate professor in the UTSA Department of Computer Science, created the ScooterLab, which has received a \$1.7M grant from the National Science Foundation.

“This funding is critical for ScooterLab as it enables us to take this community research infrastructure from vision to reality,” Jadliwala said. “We are hoping that our new research data collection infrastructure will enable exciting research.”

The ScooterLab is an instrumental piece within the university, the MATRIX AI Consortium for Human Well-Being and the School of Data Science, as the data it gathers will facilitate multi-disciplinary research efforts. Data collected by the ScooterLab will spur micro-mobility and transportation related research as well as advance research in varying machine learning, computer vision and image processing, high-performance computing, big data analytics and privacy enhancing technologies.



“Jadliwala, who is thrust co-lead for machine learning and deployment at the MATRIX AI Consortium, and his team are developing groundbreaking micro-mobility research infrastructure. It has the potential to transform the way we think about micro-mobility and create new opportunities for sustainable transportation solutions. This project is a testament of MATRIX researchers’ quest to push the boundaries of what’s possible to improve people’s lives,” said Dhireesha Kudithipudi, director of the MATRIX AI Consortium.

Funding will be used to deploy the first set of scooters on both the main and downtown campuses. The battery-operated fleet will include various sensors, remote communication enhancements and control capabilities to gather data related to the riders’ mobility, context and environment.

An initial \$100,000 NSF grant awarded in 2020 supported a one-year pilot program to develop the concept and build the technology and gauge community interest in such a data collection infrastructure.

Students at UTSA will be able to tap a small fleet of scooters for little to no cost. In exchange, students will agree to allow the ScooterLab to use data collected from their rides for research and other scientific purposes.

— Ari Castañeda

In January, the *UTSA Collegiate Penetration Testing Competition (CPTC)* cybersecurity competition team continued its remarkable season and traveled to the Rochester Institute of Technology (RIT) located in cold and snowy Rochester, NY for the CPTC Global Finals. Only 15 teams from around the world qualified for the finals, and this year, included teams from the United Arab Emirates and Jordan; and teams from all across the United States – traveling from California, Florida, Texas, and many other states.

During the three days of competition, the students continued their role as cybersecurity assessors from the regional competition, conducting a second hands-on assessment of “The Cozy Croissant” – a fictitious, family-friendly hotel in Reno, Nevada.

This was truly a continuing story as the competition organizers updated the systems based on the information in the reports they received from the earlier rounds of competition. This required the students to identify the items that had been fixed, those that had not been fixed properly, and vulnerabilities that still existed. In addition, they went hunting for more vulnerabilities that were spread throughout the hotel infrastructure, which included: Video surveillance systems, Hotel Management Software, network segmentation (including public Wi-Fi access), and business systems.

Two unique activities took place outside the cyber realm, and in the real world. The first activity was being given a hotel safe that the teams had to gain access to. There were many approaches taken by the various teams to gain access. Some teams tried to pick the key lock, some tried to use default combinations on the key pad, others tried inserting a wire through the door in an attempt to press a reset button inside the safe, and a few even tried brute force – trying to hit the safe hard enough that the door popped open. The second unique activity involved one of the competition staff pretending they were a worker at the front desk of The Cozy Croissant, and each team having an opportunity to call them on the phone and tricking information out of them. An activity called social engineering. Each team also got to take their safe home after the competition, and the UTSA safe will be proudly displayed in the new competition team space.

Aside from the penetration testing activities, the students also had to write up a report on their findings and submit it by 11:59 P.M. Saturday night. That meant, after a long day of technical work, the team had to head back to the hotel and spend six hours finishing up their 88-page report – and a presentation as well!

The next morning, they had 10 minutes to present their report to the competition sponsors and volunteers – all industry professionals – who took on the role of the board of directors for The Cozy Croissant. While the team didn’t make it into the top 3 this year – they learned a lot, and are already planning their training for the Fall 2023 competition.

The CPTC team was made up of:

Team Captain: Jacob Rahimi, Senior, Computer Science

Assistant Captain: Alex Bryant, Sophomore, Computer Science

Timothy Avram, Senior, Cyber Security

Aditya Dindi, Freshman, Cyber Security

Mason Eckenrod, Senior, Computer Science

Julian Peña, Freshman, Computer Science

They were also accompanied by two coaches – Benjamin Anderson and John Newsom, both in the Information Systems and Cyber Security department, although Ben is also shared with the Computer Science department.

However, while the CPTC season has wrapped up – the Collegiate Cyber Defense Competition (CCDC) season is just starting. The Team Captain for CCDC is Henry Graham, a Junior in Cyber Security, with Jacob Rahimi, a senior in Computer Science, as the Assistant Captain. These two will lead a team of 12 students – 8 on the primary roster and 4 alternates – through the qualifying round in February, with their eye on qualifying for the Southwest CCDC regionals held in Tulsa, OK in March and from there, looking to advance to the National Championship round in April.

- Ben Anderson; Associate Professor of Practice



Figure 1: The Roadrunners team presenting their findings at CPTC. From L to R: Julian Peña, Mason Eckenrod, Aditya Dindi, Alex Bryant, Timothy Avram, Jacob Rahimi

Congratulations!

Dr. Dakai Zhu has been selected for this year's The Kay and Steve Robbins Faculty Teaching Fellowship Award.

Dates: 6/1/2023 and ends 5/31/24

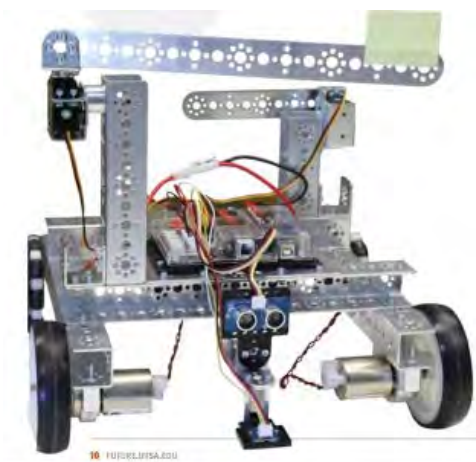
Budget: \$11,158

Proposal:

With the recent advancement in intelligent technologies, including AI and machine-learning, autonomous driving has entered our daily life in an unprecedented pace. Such technological development will significantly improve the quality of life (especially for those with special needs) for the generations to come. This naturally and increasingly demands for more qualified workforce to effectively support sustainable development in such advanced technologies. However, the existing curriculum in Computer Science at UTSA has very limited hands-on/experimental components to study and learn the related concepts and knowledge.

Currently, the course CS 4833 "Embedded Systems" covers basic concepts and fundamental knowledge on how computing systems interact with outside physical world by incorporating hands-on projects with the support of TETRIX programmable mobile robots (as shown in the figure below). Equipped with a simple sonar distance sensor and light sensor, the TETRIX mobile robots have very limited capabilities in supporting autonomous driving, where they may only detect objects in the front of the robot and follow color tapes on the ground. However, such limited capabilities in turn hinder the learning opportunities for our students to obtain knowledge in advanced autonomous driving techniques (such as perception of surrounding environment and computer vision for object detection and recognition, which have been widely adopted in real autonomous driving vehicles).

Dr. Zhu has received UTSA OIT Academic Support Solutions Fund and acquired 10 sets of laser scanner and rangefinder sensors in 2019. Such laser scanner sensors and cameras are fundamental components to perceive surrounding environment of mobile robots and to build more advanced autonomous driving capabilities. The main tasks of this project include: a) investigate and develop supporting software package to utilize laser scanner and rangefinder sensors on RaspberryPi; b) investigate and develop software package to utilize Pi camera on RaspberryPi; and c) develop course projects to learn and utilize both sensors on RaspberryPi.



Spring 2023 Computer Science Ph. D.

Prospective Graduate

Sabra Mohd

Major Professor: Dr. Murtuza Jadliwala
"Addressing Privacy Challenges in Modern
Audio-Video Communication Systems &
Applications"



RowdyHacks 2023

A Successful Event for Technology and Innovation

The 8th RowdyHacks event was held on March 25th – 26th, 2023 in UTSA’s newly established School of Data Science (SDS). Hackers from all disciplines, backgrounds, & technical levels were welcomed and it brought together a diverse group of individuals with a shared passion for technology and innovation. The event was a huge success, and we are proud to have been a part of it.

Students joined to network, code, collaborate, and compete. Event highlights included 6 mini events, 6 workshops, 17 judges, 40 mentors, 505 hackers and 76 projects and \$5,778 in prizes.

Projects ranged from ‘RowdyChat’; a SpringBoot web server that lets you log in with Github Oauth, linking your account to a phone number so that you can receive SMS messages from certain group chats, to ‘Lost in Translation’; a game about experiencing different cultures through languages.

Best Hardware; Learners Track: 1st Place

Expedition Module

A sensor module that measures atmospheric conditions and prints the data on the monitor.

Israel Chaez
Sam Wendorf

General Track: 1st Place

TelloExplore

Explore the unknown safely and cheaply through remotely operated devices and map out your newly discovered environment!

Alec Graves
Sergio Romero Jr.
Brandon Campos
aRamirezUT Ramirez

Most Creative Use of GitHub

HackWrapr

At HackWrapr, we provide useful information about hackathons that can’t be found anywhere else. You can think of us as a gamified spotify wrapped for hackathons!

Lizzy Yoon
Adam Teo
Ayo Fatoye

Best Domain Name from Domain.com; Learners Track: 2nd Place

FuelSwitcheroo

FuelSwitcheroo is a website that makes switching from regular fuels to alternative fuels easier. You can enter an address or move a marker and it will show the closest alt. fuel stations near you.

Daniela Picon Salas Travis
Gomez Genesis Sarabia

Best Blockchain Project Using Hedera

HeyThere!

HeyThere! provides a simple and effective way to add an extra layer of security to your crypto wallet by implementing two-factor authentication.

Brandon Hawkins Dylan
Gonzales Ethan Marshi
Mason Eckendod

Best Cyber Security Hack

EZSecurity

EZSecurity is a Google Chrome extension that aims to protect the elderly and individuals who are not tech-savy. EZSecurity provides an extra layer of security at the click of one button.

Vincent Ferrer
sl00th-
brandon



Most Creative Use of Twilio

RowdyChat

Chat online and via SMS with members of RowdyHacks!

Ryan Peel
Ryan Silvus
Calvin Jessen

General Track: 2nd Place

Diving into Imagination

Modeling the Mandelbrot fractal in Rust, using only Ray-lib to display the output. Supports zooming down to the atomic level, while maintaining real-time performance on very low end hardware.

Logan Gatlin



Best use of Google Cloud

TutorAI

Take control of your learning button.

Jduhking Odebiyi
Jason Antwi-Appah
Andrew Melbourne



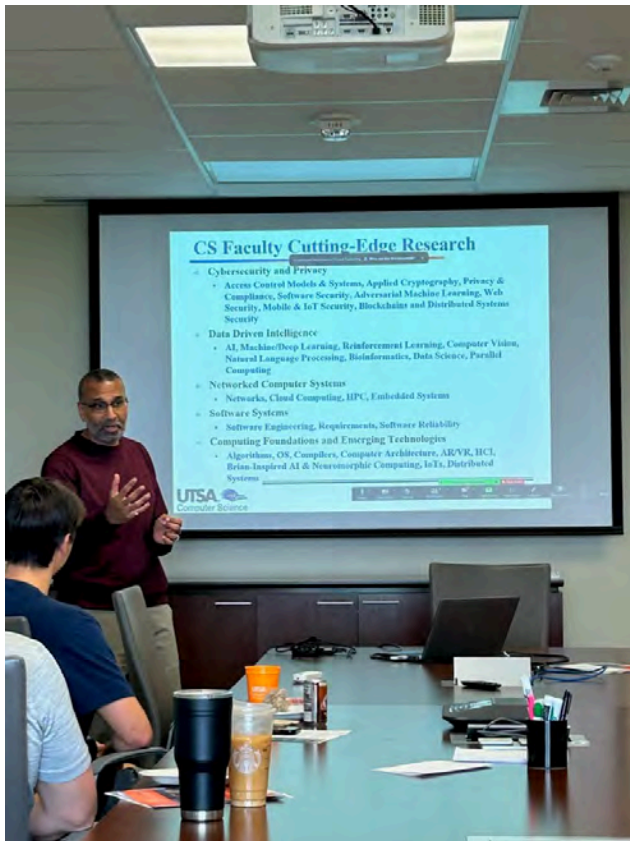
<https://rowdyhacks2023.devpost.com/>

Computer Science Events Semester-In-Review

Computer Science Alumni 30 to R1 Event



Ph. D. Hooding Ceremony



Master of Science - Cybersecurity
Science Information Session- Dr.
Jadliwala



CS @ Tobin Film Series; Debra Leal
Hidden Figures

ACM @
UT Dallas
HackUTD



Computer Science Events Semester-In-Review

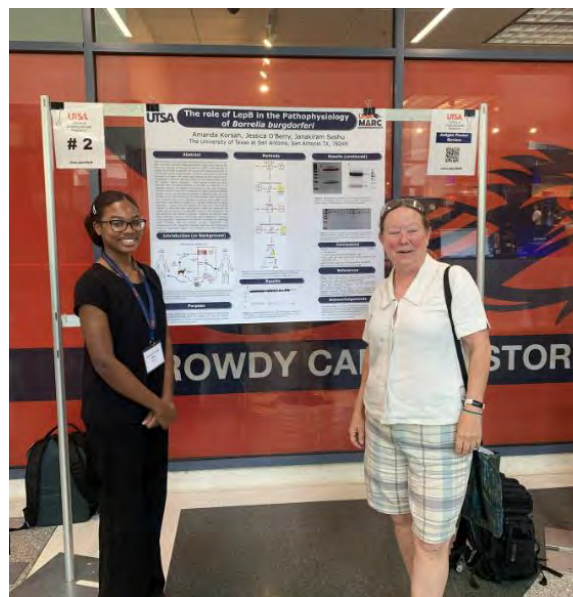
San Antonio Tech Port Day



Lovelace 1815



Undergraduate Research Event



Dr. Korkmaz, Dr. Wang, Dr. Zhu UTSA 30 to R1 Event



Dr. Korkmaz, Dr. Silvestro, Dr. Heaps, Dr. Desai Rowdy Hacks Judges



ACM Banquet ACM President, Elijah Moya

Computer Science Spring 2023 Picnic





BS in Software Engineering Department of Computer Science

San Pedro I is an epicenter for high-tech education and research!

We are excited to announce our continued growth at the San Pedro I campus. Effective Fall 2023, several Computer Science classes are moving to the San Pedro location.

UTSA offers several methods for parking and transportation.

If you have a surface parking permit—such as Reserved, Employee A or B, Commuter, etc.—you can find convenient parking in eligible spaces in a wide variety of locations. If you have a garage permit, you can use it in your chosen Main Campus garage, as well as the Downtown Campus garage.

Parking at San Pedro I

The Downtown Campus

Faculty, staff and students who work or study at San Pedro I can find ample parking in a variety of locations. Primary parking options are at the Downtown Campus, a short walk from San Pedro I. Surface parking lots under Interstate 10, such as lots D1 and D2, are a short five-minute walk from San Pedro I and offer numerous available parking options.

VIA U-Pass

UTSA and VIA Metropolitan Transit partner to provide free, unlimited bus service to current UTSA students and paid employees through the VIA U-Pass program.

Traveling Between Campuses

VIA offers convenient, frequent bus service to UTSA's downtown locations. For example, route 93 connects the Main Campus, Downtown Campus and San Pedro I.

Visit the UTSA Campus Services Website for more information.

The field of software engineering is constantly evolving and facing new challenges and opportunities. One of the emerging trends that may disrupt this field in the next few years is AI-based assistive technology such as large language models (LLMs) which enable users to create software applications with minimal coding. These disruptive technologies also create new opportunities for software engineering professionals who can leverage these platforms to deliver more value-added solutions. There is a significant need and demand for graduates with a Bachelor of Science degree in Software Engineering (BS-SE) who can design, develop, and maintain complex software systems. According to the U.S. Bureau of Labor Statistics (BLS), employment of software developers is projected to grow 25% from 2021 to 2031.

The Computer Science Department has proposed to offer a Bachelor of Science-Software Engineering degree to provide students with a more focused and relevant education that will enhance their employability and competitiveness in the job market.

The Bachelor of Science-Software Engineering degree is designed to build workforce-specific skills and knowledge in software engineering, such as software analysis, design, development, testing, quality assurance, project management, and user interface design. Educational materials and new/revised courses that will be developed for BS-SE will enrich elective options for the other CS degrees and Concentrations as well.

We plan to adapt our curriculum accordingly to expose our students to LLM concepts and technologies and prepare them for future jobs.

By the end of the program, students will be able to:

- Analyze, design, and develop software systems using best practices and industry standards.
- Communicate effectively with stakeholders, team members, and clients.
- Understand and apply software testing, quality assurance, and project management techniques.
- Work collaboratively in diverse teams and environments.
- Continuously learn and adapt to new technologies and emerging trends in software engineering.

From	To	VIA Route	Board Bus Here	Exit Bus Here	Approx. Travel Time
Main Campus	Downtown Campus	93	Campus Oval	DTC – Buena Vista	28 minutes
Downtown Campus	Main Campus	93	DTC – Frio Street	Campus Oval	31 minutes
Downtown Campus	Southwest Campus	17/96*	DTC – Buena Vista	Southwest	20 minutes
Southwest Campus	Downtown Campus	3	Southwest	Centro Plaza (2-block walk to campus)	13 minutes



Your career interest and development is important because you are working toward to dream, a goal, and a purpose! The University Career Center will work with you to support you finding experiences and opportunities while with UTSA and beyond! Creating a plan and strategy for your success is our passion. Therefore, we provide individual career counseling, virtual networking events with employers from across the country, and a vast array of virtual resources.

Check out what we have for you!

- Log-in to Handshake to connect, schedule appointments, find events, jobs and more!
- Unsure about what career to pursue? Take the Career Explorer Assessment
- VMock provides you with instantaneous feedback on your resumes, 24/7.
- CareerShift is a national job search tool . Career Shift pulls jobs posting from all over the internet and puts them all in one place.
- Interview Stream allows you to get interview practice before the actual interview! Practice from the comfort of your computer and get feedback on how on well you did.
- Check additional resources the University Career Center offers on our Resources Page.
- Join us at our largest fall fairs. Keep an eye on our website or Handshake for all the details!

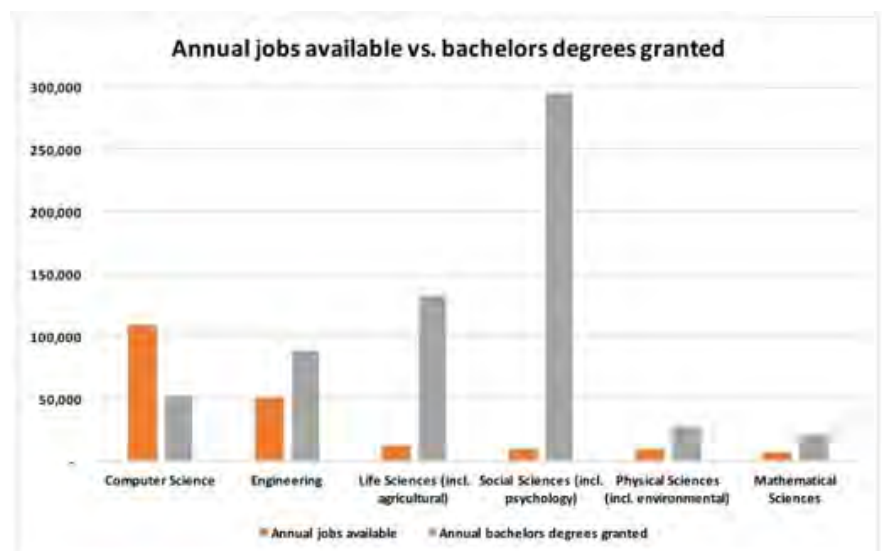
Visit the Career Center at Main Campus, Student Union 2.02.04. You can also just visit our website or email us at career.services@utsa.edu.

According to the National Association of Colleges and Employers, "The likelihood of securing a paid internship increases for students who visit their campus career center".

Computing jobs are the #1 source of new wages in the United States

The US Bureau of Labor Statistics (BLS) reports the median annual salary of computer scientists as \$131,490 with a range of \$74,210 for the lowest 10 percent of wage earners and \$208,000 for the highest 10 percent. According to Glassdoor, the average base salary for a computer scientist in the US is \$107,396, with a range of \$88,000 to \$192,000.

<https://www.coursera.org/articles/computer-science-salary>



STUDENT ORGANIZATIONS FOR UTSA COMPUTING STUDENTS

UTSA has more than 330 student organizations on campus, giving its students have plenty of opportunities to connect with one another. Computer Science (CS) has many student organizations organized and run by computer science students to create a network of community amongst their fellow CS peers. One of the best ways to get connected with other students and stay in-the-know of upcoming events and activities is to join one or more of the CS clubs available for students. These organizations host various events throughout the year, including but not limited to hackathon competitions, capture the flag cyber competitions, industry panels from invited speakers, volunteer opportunities, career prep, hands-on tech workshops, studying sessions, mentoring circles, networking events, and fun socials on and off-campus.

ACM

Association for Computing Machinery

ACM is dedicated to giving members and students the opportunity to gain experience, network, socialize, learn, and grow outside of the classroom in all fields of technology and computing.

Email council@acmutsa.org
Website <https://www.acm-utsa.org/>

ACM-W

Association for Computing Machinery Women's Chapter

ACM-W aims to create an engaging academic, professional, and social network for women and minorities in technology. ACM-W's purpose is to connect students with leaders and encourage them to pursue career opportunities in computing fields and to mentor for academic and professional success.

Email acmw.utsa@gmail.com
Website <https://www.acm-utsa.org/acm-w>

ACM - ICPC

International Collegiate Programming Contest

International Collegiate Programming Contest The ACM-ICPC, or International Collegiate Programming Contest, is a world-wide programming contest where thousands of 3-person teams compete by solving anywhere from 8 to 12 algorithm problems of varying difficulty, from easy to extremely hard.

Email Mark.Robinson@utsa.edu
Website <https://www.acm-utsa.org/icpc>

RowdyHacks

ACM RowdyHacks Committee

RowdyHacks is ACM UTSA's annual hackathon held every year in April. Every year, a committee of ACM members get together to help plan and organize the biggest hackathon in San Antonio, TX accommodating hundreds of students, sponsors, volunteers, and mentors.

Email team@rowdyhacks.org
Website <https://www.acm-utsa.org/rowdyhacks-1>

INTERDISCIPLINARY AND GRADUATE STUDENTS ORGANIZATIONS FOR COMPUTING

As the university encourages more collaboration across departments and colleges, more students begin establishing interdisciplinary organizations across wide varieties of fields and specializations. For Computer Science students, there are many opportunities to connect with students from other majors and programs to network with, learn from one another, and develop well-rounded skills applicable to their field of study. Masters and PhD students also have opportunities to connect with their peers through the graduate student organizations across the university and in the Computer Science department specifically. Graduate students are provided more research specific seminars and information sessions to assist with their courses, theses, and dissertations, as well as social events to connect with their peers and motivate one another to succeed.

RowdyCreators

ACM RowdyCreators
Rowdy Creators is a technology startup incubator that provides students with the opportunity to learn new technologies, build hands-on projects in diverse teams, formulate innovative ideas, and develop proofs-of-concept for potential startup ventures.

Email rowdycreators@gmail.com
Website <https://www.acm-utsa.org/rowdy-creators>

CSA

Cyber Security Association
CSA regularly participate in offensive and defensive cyber competitions and exercises to hone their skills. CSA provides training and professional events for students in computing fields.

Email utsacyber@gmail.com
Website <http://utsacyber.com/>

CS-GRAD

Computer Science Graduate Student Association

CS-GRAD is the graduate student group for computer science students at UTSA. Join us for tips and tricks for efficient grading and effective recitations.

Website <https://discord.gg/weNtPTy>

IEEE EBM

IEEE Engineering in Medicine and Biology Society

All students, especially those interested in the fields that make up the EMBS, are welcome to join. Through volunteering, education, and informative presentations, we strive to promote innovation and participation in the field of technology and medicine

Website <https://embsutsa.wordpress.com/>