

NEWSLETTER

COMPUTER SCIENCE

The Computer Science newsletter highlights recent events and achievements of students, faculty, and staff. The intention is to share valuable information, celebrate our faculty and student success, communicate events and opportunities.



UTSA announces College of AI, Cyber and Computing

As a commitment to advancing visions and the integration of emerging fields, in December 2024, the university announced the College of AI, Cyber and Computing. The college officially launches August 2025 and San Pedro II is scheduled to be open January 2026. The Computer Science Department invites you to read more, and how the integration benefits the university, college and students.

Reprinted from UTSA Today

<https://provost.utsa.edu/ai-cyber-computing/>

DECEMBER 12, 2024 — UTSA today announced plans to launch the College of AI, Cyber and Computing, advancing the university's strategic vision to integrate emerging technologies with interdisciplinary approaches. This innovative college will build on UTSA's leadership in artificial intelligence (AI), cybersecurity, data science and related disciplines to address the demands of an increasingly digital and interconnected world.

The announcement follows recommendations from an advisory task force that launched in January, as well as deep and broad consultation with internal and external stakeholders over the past year.

Slated to formally launch in fall 2025, the new college is expected to enroll well over 5,000 undergraduate and graduate students. Its faculty and staff will work closely with employers and community partners to align its academic programming with workforce needs, ensuring UTSA graduates are well-prepared for emerging career opportunities.

"Our newest college is at the epicenter of the digital convergence that will shape the future, as it focuses on thought leadership, new innovations, transdisciplinary collaboration and future applications of AI, computing and data science," said UTSA President Taylor Eighmy. "Moreover, this first-of-its-kind college reinforces our position as a leader across disciplines, driving the workforce and economic development that our city, state and nation need."

"UTSA's commitment to innovation is deeply tied to our role as a catalyst for economic growth in San Antonio and beyond."

Fueling Workforce Growth in San Antonio's Tech Corridor.



A focus on workforce development is a cornerstone of the new college, as demand for expertise in AI, cybersecurity, computing and data science continues to grow. According to the U.S. Bureau of Labor Statistics, job growth in data science and cybersecurity alone is projected to exceed 35% by 2031, with millions of positions opening worldwide in these and related fields.

Building on the success of the UTSA School of Data Science, launched in 2018, the establishment of the College of AI, Cyber and Computing represents the university's next step in meeting the region's growing demand for skilled professionals. As a key component of UTSA's downtown expansion, the college will serve as a dynamic hub for education and research while deepening UTSA's connections with industry and government partners.

"UTSA's commitment to innovation is deeply tied to our role as a catalyst for economic growth in San Antonio and beyond," said UTSA Provost and Executive Vice President for Academic Affairs Heather Shipley. "By anchoring the new college downtown and aligning its programs with workforce needs, we're creating unparalleled opportunities for our students and amplifying our city's reputation as a destination for top talent and innovation."

Headquartered at the UTSA Downtown Campus in San Pedro I and the under-construction San Pedro II, the college will expand UTSA's role as a cornerstone of San Antonio's tech ecosystem. By fostering strong ties with local and national partners, UTSA is solidifying San Antonio's position as the largest information security hub outside Washington, D.C.

Most notably, Shipley added, these collaborations will offer students hands-on learning opportunities, including internships, research and real-world projects, ensuring they graduate with the skills to excel in high-demand fields.

Focus Areas

The UTSA College of AI, Cyber and Computing will comprise four specialized departments, structured to maximize current expertise and collaboration across computer science, computer engineering, information systems and cyber security, and data science and statistics. These departments will collectively oversee a robust portfolio of undergraduate and graduate degree programs designed to prepare students for high-demand careers while advancing UTSA's role as a research powerhouse.

"The nexus of disciplines will accelerate innovation across industries by creating smarter, more secure and efficient systems," Eighmy said. "The rapid pace of technological advancement makes it critically important to integrate cyber into the foundation of AI and data operations."

Academic programs in the new college will be structured as follows:

A department focused on computer science will combine the university's existing degrees in computer science and a newly approved undergraduate program in software engineering, also scheduled to launch in fall 2025.

Computer Science (B.S., M.S. and Ph.D.)

Software Engineering (B.S.)

Bridging software and hardware, a department focused on computer engineering will house degrees in computer engineering and artificial intelligence.

Artificial Intelligence (B.S., M.S.-MDST)

Computer Engineering (B.S., M.S. and Ph.D.)

Addressing critical needs in cybersecurity and information systems, a department focused on information system and cyber security will offer degrees such as

Applied Cyber Analytics (B.S.)

Cyber Security (B.B.A.)

Cyber Security - Information Technology (M.S.)

Cyber Security Science (M.S.)

Information Systems (B.B.A.)

Information Technology (M.S., Ph.D.)

Finally, a department focused on data science and statistics will drive innovation in data-driven decision-making.

Applied Data Science (B.A.)

Applied Statistics (Ph.D.)

Data Analytics (M.S.)

Data Science (B.S.-MDST)

Statistics and Data Science (B.S., M.S.)

More than 5,000 UTSA students currently are enrolled in these degree programs.

By aligning existing programs and creating opportunities for new ones, the college will also enable UTSA to respond swiftly to emerging technologies and market needs.

More information on the College of AI, Cyber and Computing can be read here:

<https://provost.utsa.edu/ai-cyber-computing/>

UTSA COMPUTER SCIENCE WELCOMES NEW FACULTY



Taslima Akter, Ph.D.

Assistant Professor

Research Interests

Accessibility

Human-computer interaction

Privacy



Subhasish Das, Ph.D.

Assistant Professor of Instruction

Teaching

Bayesian Nonparametrics

Machine Learning

Predictive Analytics, Time-Series Anal



Ziad Najem, Ph.D.

Professor of Instruction

Teaching

Artificial Intelligence and Automated
Problem Solvers

Mobile and Web Applications

Programming Languages and Compilers



Kumar Thummapudi, Ph.D.

Assistant Professor of Instruction

Teaching

Cyber Threat Intelligence and Hunting

Cyber/Web Forensics

Ransomware Mitigation Techniques

Security in TOR Networks

Alumni Spotlight



Omar Chowdhury

Associate Professor, SUNY Empire Innovation Scholar

Meet Omar Chowdhury!

Omar was a post-doctoral research associate at Cylab, Carnegie Mellon University (Host: Prof. Anupam Datta) and Purdue University (Host: Prof. Ninghui Li). He received his Ph.D. in Computer Science from the University of Texas at San Antonio under the supervision of **Prof. Jianwei Niu** and Prof. William H. Winsborough (deceased). He received his undergraduate education in Computer Science and Engineering (CSE) at the Bangladesh University of Engineering and Technology (BUET).

Omar's research interest lies in Computer Security and Privacy. Broadly, He is interested in applying techniques from formal verification and runtime monitoring in achieving provable security and privacy assurances of modern systems and protocols. He is also interested in applying formal verification and software engineering techniques to automatically detect functional bugs in network protocols and safety-critical cyber-physical and IoT systems.

<https://www.cs.stonybrook.edu/people/faculty/omarchowdhury>

Staff Introduction

Elizabeth Miller joined the Department of Computer Science in July 2024 as an Administrative Associate II. In her role, Elizabeth assists students and faculty with a variety of tasks, including travel arrangements, scheduling, book adoptions, and Persons of Interest (POI). Elizabeth is a proud graduate of UTSA, where she earned her bachelor's degree in Human Resource Management in 2013. Elizabeth is a Navy veteran who is devoted to caring for her family and helping others.

In her personal life, Elizabeth is married to Brandon Miller, and they have been enjoying life together for 18 years. They are proud parents of three creative kiddos: Camilla, Ryan, and Ava. Her family also includes two lovable dogs, Cheyenne and Honey, and a beautiful cat named Myuki.



Research Lab Spotlight

The Vision and Immersive Realities Lab (VIRLab)



The Vision and Immersive Realities Lab (VIRLab) at UTSA is an innovative research facility that explores the cutting-edge intersections of technology, human perception, and immersive experiences. VIRLab's interdisciplinary approach encompasses Computer Vision and Immersive Realities, including Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR). The lab leverages its discoveries to impact diverse fields, including healthcare, rehabilitation, virtual training, and serious gaming, with a core mission of enhancing human quality of life through immersive technologies. <https://utsa-virlab.github.io/>

Current Students



Principal Investigator and
Assistant Professor at UTSA, Dr.
Kevin Desai



Ayda Eghbalian, PhD Student

Md Mushfiqur Azam, PhD Student

Nazanin Amini, PhD Student




OFM Riaz Rahman Aranya,
PhD Student

Sadia Mubashshira, PhD Student

Cassandra Gomez,
Undergraduate Student

Congratulations to Computer Science Fall 2024 Graduates & Spring 2025 Candidates



Jishnu Banerjee
Major Professor: Mimi Xie, Ph.D.
Dissertation Title: “Intermittence-Aware Deep Inference for Energy Harvesting System”

Md. Sadun Haq
Major Professor: Turgay Korkmaz, Ph.D.
Dissertation Title: “Data-Centric Analysis of Security and Privacy of Containerized Applications”

Johanna Jacob
Major Professor: Gregory White, Ph.D.
Dissertation Title: “Examining the Divide: Understanding Differential Reach and Accessibility in K-12 Cybersecurity Education”

Vinodh Kumaran Jayakumar
Major Professor: Wei Wang, Ph.D.
Dissertation Title: “Automatic Optimization Framework for Workload and Resource Configuration in Cloud Computing based on Machine Learning and Advanced Statistics”

Abdalwahab Almajed
Major Professor: Peyman Najafirad, Ph.D.
Dissertation Title: “Evaluation of Machine Learning Fairness in Regression Domain”


Sunzhou Huang
Major Professor: Xiaoyin Wang, Ph.D.
Dissertation Title: “Addressing Inconsistencies Across Software Environments”

Jurdana Masuma Iqrah
Major Professor: Sushil K. Prasad, Ph.D.
Dissertation Title: “Polar Sea Ice Classification and Prediction over Remote Sensing Datasets using Spatio-temporal and Machine Learning Techniques”

Shahidullah Kaiser
Major Professor: Turgay Korkmaz, Ph.D.
Dissertation Title: “Benchmarking Container Technologies for ARM-powered Edge Computing”

Hasanul Mahmud
Major Professor: Sushil Prasad, Ph.D.
Dissertation Title: “Toward Lightweight, Energy-Efficient, and Secure DNN Inferencing on Edge Devices”

Nisha Vinayaga Sureshkanth
Major Professor: Murtuza Jadliwala, Ph.D.
Dissertation Title: “Pedestrian Safety, Security and Privacy in the Era of Pervasive Mobile and Ubiquitous Computing”



UTSA launches innovative software engineering major to address growing demand for tech talent

JANUARY 23, 2025 — With the growth of software development careers projected to outpace most other professions over the next decade, UTSA is taking bold steps to prepare the next generation of tech leaders. The UTSA Department of Computer Science is launching a new B.S. in Software Engineering this spring to address workforce needs regionally and across the nation. The novel program will provide students with technical training, collaboration and project management, and an introduction to emerging industry trends. “We’ve designed this program to build on UTSA’s expertise in making computer science pathways accessible to our diverse student body,” said Fred Martin, professor and chair of the UTSA Department of Computer Science. “Our new program creates more flexibility for students and strengthens experiential learning, which is so essential for students to begin their careers.”

The Software Engineering program provides an accessible pathway to undergraduate students who may have limited programming skills but are interested in the design, development and maintenance of complex software systems. The degree will help students acquire the technical skills they need to find employment in professional roles as software engineers, computer programmers, software developers, software quality assurance analysts, database administrators and more. According to the U.S. Bureau of Labor Statistics, software developers and related careers are expected to grow at 17% from 2023 to 2033, which is significantly faster than average. Martin adds that he expects these careers to continue to have strong growth potential in the future and that the computer science department is taking an innovative approach to its curriculum by integrating instruction in artificial intelligence (AI) throughout all of its undergraduate coursework. “Everyone will be using AI, and I expect that AI will lead to more creativity in our field, further increasing the need for talented software developers,” he said.



Beyond working closely with AI, UTSA software engineering students will take courses on a wide range of topics, including algorithms, data structures and programming. Students will apply their knowledge outside of the classroom to solve real-world challenges. The coursework features a Software Capstone Design course, where students will collaborate closely with industry partners such as H-E-B, ITron and the National Security Agency on project-based coursework. This valuable, hands-on experience will make UTSA students more competitive job candidates when they graduate. Additionally, the program’s partners will provide feedback and guidance throughout the capstone course to help students gain exposure to industry standards and expectations while also expanding their professional networks. “The new software engineering program at UTSA is an innovative initiative that combines project-based learning with industry collaboration to prepare students for real-world challenges,” said Palden Lama, undergraduate advisor of record and associate professor of the Department of Computer Science. “By incorporating cutting-edge tools like large language models, the program goes beyond traditional teaching, equipping graduates with the practical expertise and the tools to shape the future of technology.”— Ryan Schoensee

Reprinted from UTSA Today

Graduate Student Spotlight



Meet Ayda Eghbalian, a UTSA computer science student. Ayda is a PhD student under the supervision of Dr. Kevin Desai. She is minoring in computer vision and has been involved in several studies. Ayda recently received the honorable mention award at the Draper Data Science Business Plan competition!

What has motivated you the most to complete your Computer Science degree?

As the world of technology matures, the layered structure of AI algorithms becomes more complicated. We are now inductively trusting our tentative experience of AI even though we do not have a detailed control over its performance. My intention behind a research-oriented degree in CS has been to get to the bottom of this new presence to maintain my awareness of its evolution rather than use it as a black box. As for the very PhD, it is a bumpy road full of self-doubt. But it is where one would find a piece of their meaning that is worthy of persistence and nurture.

What do you like most about UTSA?

Like every international student, I too did and do still face my fair share of challenges. In many of those critical times UTSA has been supportive like a family. I really appreciate the friendly and down-to-the-earth culture.

What research activities are you involved in?

This is a good one. I am minoring in computer vision and have been involved with studying human pose estimation in Virtual and Immersive Reality lab under supervision of Dr. Kevin Desai. My recent workshop paper was a study of pose estimation and action detection models on children with autism. Right now, I am building my way up to the integration of biomechanical attributes of human body with pose estimation and investigating its applications in different fields such as healthcare, sports, and safety.

How do you spend your free time?

My primary free-time activity is my workout routine cause with all those hours sitting behind a computer I hear my spine craving for it. But my guaranteed way of blowing off steam is hanging out with friends, and I have wonderful friends. I also do enjoy good reads of philosophy and reasoning, sociology, and breakthroughs in astronomy. My spouse and I spend our evenings discussing societal matters of the day and I love those talks. I also hold Persian poetry recitation nights every other week for the Iranian community.

What advice do you give women in Computer Science?

I actually do not see myself in a position to give any advice. I think it is the women in Computer Science that should give me advice because they are awesome! For women, becoming an expert in any field comes with huge inflicted overheads on mental resources. To overcome those and find your feet with any in-depth expertise, I have nothing but respect. I am just honored to be one of them and hope to keep up with the bars and standards.

Graduate Student Spotlight

Meet Ubaidullah Khan!

Ubaidullah Khan is a Master of Science student in Computer Science, driven by a deep-rooted passion for technology and innovation. Coming from a family of software engineers on his father's side, he was immersed in tech discussions from a young age, which naturally sparked his interest in the field. Although his maternal family is rooted in medicine, Ubaidullah's fascination with computers began in high school and has only grown stronger since.



Why did you choose UTSA?

I've always been passionate about computer science, and after spending about a year in the corporate IT industry, I realized just how much untapped potential the field held for me—especially in areas like data and the early applications of artificial intelligence. That realization sparked a desire to deepen my expertise through further education. As I researched universities known for strong computer science programs and opportunities for hands-on learning and research, UTSA consistently stood out. What truly drew me in were the research and development opportunities that UTSA offered—they felt aligned with exactly what I was seeking. Beyond academics, I was also drawn to San Antonio itself. The city's accessibility, welcoming community, quality of life, and great weather made it a place I could genuinely see myself thriving in.

Tell us about your involvement in research?

UTSA has given me countless opportunities to explore my interests and grow both academically and personally. From my very first semester, I became actively involved in research through ScooterLab—a community research infrastructure initiative. There, I had the unique opportunity to work not only on software development but also on hardware and system design, helping to build custom-fitted e-scooters for urban data collection and testbed deployment.

I'm also part of our thriving CS Grad Group, where we gather monthly for discussions, talks, games, and community-building activities. Outside of academics, I was proud to be playing for both the soccer and tennis teams—an experience that meant a lot to me personally.

In addition, I was involved in several student organizations, including ACM-UTSA, Google Developer Student Club (GDSC), Green Society, Adobe Student Ambassadors, and the Student Government Association (SGA), among others. Each of these experiences added something unique to my time at UTSA, helping me develop both as a professional and as a person.

How do you spend your free time?

I love to travel and explore new places whenever I get the chance. During longer breaks, I often head out with friends to enjoy the many beautiful parks around San Antonio and nearby suburbs. I enjoy hiking, visiting national parks, trying out new restaurants and cafes, and simply discovering different corners of the city. Even a casual evening walk along the River Walk or a stroll through downtown is something I really cherish—it helps me unwind and stay connected to the city I've come to love.

Ubaidullah Khan continued

What are your plans after your MS degree?

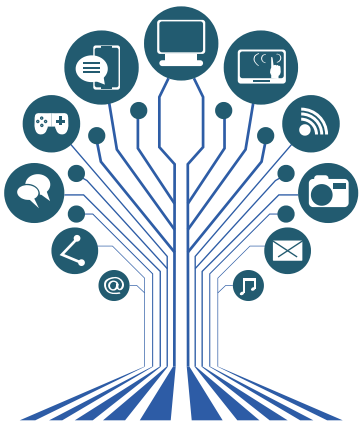
Professionally, my immediate goal is to gain industry experience by working in the IT sector. I'm excited to apply the skills and knowledge I've built during my master's program to real-world challenges. As for the long-term, I like to stay open and take things as they come. Whether it's advancing within the corporate world, exploring entrepreneurial paths, or returning to research later down the line, I'm keeping my options flexible and focused on continued growth.

What has motivated you the most to complete your Computer Science degree?

What's motivated me the most is the sense of accomplishment that comes from solving problems and building things from the ground up. Whether it's debugging a tricky query, developing a functional application, or creating something entirely new, those small victories along the way have kept me inspired. The joy of turning an idea into something real—and learning in the process—has been incredibly fulfilling and continues to drive my passion for computer science.

Where do you see yourself in 5 years?

In five years, I see myself working in a research and development team - either at an innovative startup or a leading tech company - building products and solutions that truly make an impact. I'm passionate about using technology to solve real-world problems, and I hope to be in a role where I can continuously learn, innovate, and contribute to meaningful projects.



Computer Science Senior Student Spotlight

Meet Joshua Silva! Joshua is a computer science senior with a concentration in software engineering. He is currently the Vice President of ACM UTSA, and previously served as President for ACM.



Why did you choose UTSA?

UTSA was not actually my first choice. I was admitted through UT's Coordinated Admissions Program. I decided to stay at UTSA for the rest of my bachelor's because I saw a lot of undervalued opportunities that no one was taking. I particularly saw a lot of potential within ACM to make a lot of positive change on the org and continue its upward growth.

Why did you choose Computer Science?

I chose Computer Science because I just love creating things that make a far-reaching impact. Software Engineering, particularly web development, allows me to build something that reaches that reaches the most people possible. I've seen the way that new developments in computer science on the bleeding edge of technology have made people's lives easier and safer and I want to be a part of that.

Tell us about your involvement with the Association of Student Machinery (ACM).

ACM is the premier tech student organization on campus. I've been in ACM for three years now, serving a number of different roles on the officer board. I've gone from a junior officer to President in no time and I've learned so much in the process about technology and leadership along the way. For all three years, it's been a pleasure to work with the officer team add so much value to our tech community on campus. I currently serve as the org's Vice President, but I will be switching to the role of Projects officer at the end of my term where I will get to focus on ACM's open-source software development group.

What has motivated you the most to complete your Computer Science degree?

For me, not finishing was simply not an option. I think it's incredibly important to distinguish yourself, especially in an increasingly competitive field like software engineering. A degree is proof of competence to employers and even if I were to land a job with it, I would even find a point where I could not get any more promotions without a degree. If you believe in yourself and your potential, it doesn't make any sense to limit yourself so early.

ACM President Student Spotlight

Meet Kailey Perrino! A senior majoring in Computer Science with a focus on the Cyber Operations track. Kailey currently serves as President of the Association for Computing Machinery (ACM), after previously leading ACM-W as President during the 2023–2024 academic year and serving as Technical Officer for Women in Cybersecurity (WiCyS) in the same period. Her passion for cybersecurity led her to apply to the University of Texas at San Antonio (UTSA), drawn by its NSA-designated National Center of Academic Excellence in Cybersecurity. After graduation, Kailey plans to move to Chicago to join the Forensics Services team at Charles River Associates, where she looks forward to applying her skills in a real-world setting.



Why did you choose Computer Science?

I have always been interested in problem-solving, so I decided to take a computer science course in high school. It was interesting, but the best part of the class was when the teacher introduced me to a program that gamified cybersecurity, and I tried it and loved it. I then got to take some cyber certifications and continued on that path at UTSA as a computer science student with a focus on cyber operations.

What has motivated you the most to complete your Computer Science degree?

I am an ambitious person who strives for excellence in everything I do, including completing my Computer Science degree and setting myself up for success as I begin my professional career. I am lucky to have encouraging friends and family as well. Additionally, it has been beneficial to be surrounded by hardworking and supportive people in ACM. Everyone that is part of ACM wants to see you succeed and will do what they can to help you reach your goals. I have also had supportive professors and faculty, including Dr. Keith Harrison, Dr. Rita Mitra, and Debra Leal, who have helped me throughout my degree.

Kailey speaks more on ACM and provides her recommendations:

ACM is the premier technology organization at UTSA. We put on a variety of events including technical workshops, professional development opportunities, networking events, and socials through our sub organizations including ACM-W, Coding in Color, RowdyCreators, ICPC, Intro to Tech, and our hackathons like Rowdyhacks, Datathon, and CodeQuantum. At our hackathons, students from diverse backgrounds can collaborate on projects, learn new skills through workshops, and connect with employers from the tech industry. ACM will also be supporting a cybersecurity conference, Rowdy CyberCon, next year.

Having been a part of ACM for the duration of the time I have been at UTSA I can say that it has been transformative in preparing me for my future professional career and has provided me with the most rewarding experiences of my college career. I have gained invaluable leadership, organization, and communication skills. I have met inspiring people that have pushed me to be my best and helped to create my network. Through the tools ACM has provided me I have gotten to put on events that set other students up for success and continue to pass on the knowledge I have gained. I would recommend any student that is interested in technology to join ACM and take advantage of the opportunities that ACM has to offer.

We are excited to share important research being conducted by Computer Science faculty members Dr. John Quarles and Dr. Kevin Desai. Their work focuses on expanding the accessibility of virtual reality (VR), ensuring that immersive technologies can be used by individuals of all abilities. We are pleased to re-distribute the following article, reprinted from UTSA Today, highlighting their innovative efforts and the impact of their research on technology design.

UTSA research shaping future of accessible virtual reality

APRIL 10, 2025 — UTSA researchers are leading a \$1.2 million project funded over three years by the National Science Foundation to make virtual reality (VR) universally accessible. Their research aims to revolutionize VR experiences for people with balance impairments, a condition that affects an estimated 69 million people in the U.S. alone. The project, titled Adaptive Auditory Feedback to Improve Balance in Virtual Reality at Home, is led by Professor John Quarles and Assistant Professor Kevin Desai from the UTSA Department of Computer Science and Professor Alberto Cordova from the university's Department of Kinesiology. The trio is teaming up to find a solution that would enable individuals with balance challenges to more regularly enjoy the benefits of VR, including rehabilitation, education and fitness. Their work will be especially helpful for people with neurological disorders, vestibular dysfunction and the elderly. "This project is all about improving VR to enable people to have a better quality of life." The UTSA researchers are developing specialized audio feedback — sounds or noises controlled with artificial intelligence (AI) — to improve a VR user's balance. Quarles, Desai and Cordova examined several auditory techniques, including sending white noise signals through headphones, to see if these sounds could help reduce a person's imbalance.

— Michelle Gaitan and Tiffany Huertas



Desai says the team's preliminary research demonstrated that some auditory signals, such as white noise, did help people improve their balance. "This specific project is going to be very exciting, because the end goal of this is to provide a means for people to use the VR devices at home, not just in lab environments," he said. "This project is all about improving VR to enable people to have a better quality of life."

In phase one of the research study, conducted in UTSA's San Pedro I Building, participants are secured in a harness as they stand on a balancing board wearing a VR headset and a special suit. A camera system surrounds them, capturing their every move from multiple angles to study their balance. The data that the researchers collect is used to create and fine-tune AI models. These models are then used in a VR environment to provide auditory signals that ensure the individual is steady.

Developing AI Tools for K-12

Dr. Fred Martin, Computer Science Chair and Professor, lead a group of students that created original software products to teach central ideas in Artificial Intelligence. The systems were lead by students and facilitated by Drs. Fred Martin and Ismaila Sanusi in the Computer Science Department and Dr. Deepti Tagare in the Interdisciplinary Learning and Teaching Department. The teams worked tirelessly all semester to develop AI demos for BASIS Shavano ISD middle school kids.

The partnership with BASIS has been on-going for three academic semesters.

Superhero School - teach the Robot Recruit how to be a hero by making choices and responding to challenging scenarios

EmoSnap - students participated in an interactive experience utilizing AI and emotions

PathfAInder - Inside a Minecraft world, students took the role of an AI agent to reinforce learning

Kids AI Lab - BASIS students trained a neural network to recognize three images and a visualization training process

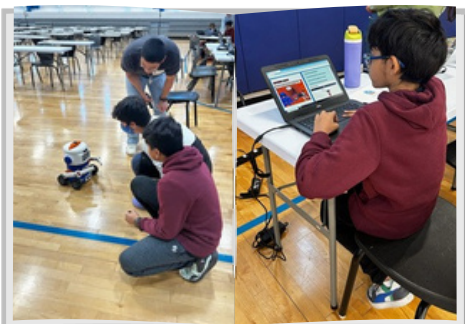
Think Like AI - Insight on how Large Language Models like ChatGPT work



AI See - students discovered how computer visions works by learning about the mathematics behind 'kernels'

Echo the Robot - Students interacted with Echo the Robot giving it commands via a Chat GPT language understanding model

DoppleBot - A social deduction game where an AI bot pretends to be you



Artificial Intelligence For Everyone!

Hosted by UTSA faculty and students, AI for everyone is scheduled for June 9-12, 2025. For students entering 6th, 7th, or 8th grade with a curiosity about how AI works, Artificial Intelligence for Everyone is a hands-on, interactive camp designed to introduce middle school students to the exciting world of AI!

We are excited to be offering this camp! Scan the code for more information. **AI for Everyone flyer at the end of newsletter for distribution. We encourage you to share!**

Program Highlights:

Explore image processing, generative AI, and machine learning

Build your very own AI app to tackle a real-world challenge

Learn from passionate UTSA faculty and students involved in cutting-edge AI research

No coding experience required—just bring your creativity and curiosity!

All materials provided

This camp is part of a UTSA research initiative to discover the best ways to teach AI concepts to younger learners.



Internship Spotlights

Internships offer valuable opportunities for students to enhance their educational journey and build meaningful experiences. As short-term positions designed to prepare students for future careers in their field of study, internships provide real-world exposure, skill development, and a chance to grow professional networks. In many cases, they can even lead to full-time employment or college credit. To celebrate the hard work and accomplishments of our interns, the Computer Science Department is proud to acknowledge the following students:

Intern Spotlight: Samrudh Poovaiy

Internship Role: Security Analyst

Company: Frost Bank



Samrudh Poovaiy completed an impactful internship with Frost Bank, gaining valuable hands-on experience in cybersecurity operations. During this internship, Samrudh worked with industry-standard security tools such as:

- Splunk – for Security Information and Event Management (SIEM)
- Falcon – for Endpoint Detection and Response (EDR)
- Zscaler – for cloud security

Through this experience, Samrudh shared:

"I am developing a deeper understanding of threat detection, incident response, and network security. I am learning how to analyze security logs, investigate potential threats, and contribute to strengthening the bank's cybersecurity posture."



Intern Spotlight: Valerie Salinas

Internship Program: UTS Bold Careers – Ready to Work SA

Host Organization: GameDevHQ

Valerie Salinas participated in the UTS Bold Careers Internship Program, where she gained hands-on experience in video game development at GameDevHQ. Her work focused on developing technical and software development skills, with a strong emphasis on both 2D and 3D game mechanics.

Throughout her internship, Valerie explored key aspects of game development, including game physics, rendering, and interactivity. She sharpened her programming skills in C# and worked extensively with the Unity game engine. In addition to technical development, Valerie honed her ability to communicate complex concepts clearly by writing articles about her learning experiences, further reinforcing her knowledge.

The program also provided professional development opportunities, including interview preparation covering both technical and behavioral aspects.

"This internship has provided me with practical coding experience, a deeper understanding of game mechanics, technical writing skills, and professional development support—all of which will be valuable in my future career."

Internship Spotlights



Intern Spotlight: Bryan Palomo
Internships: Amazon & FacilityForce
Upcoming Internship: Microsoft – Summer 2025

Bryan Palomo has completed multiple impactful internships, demonstrating strong technical ability and a passion for solving real-world challenges.

At Amazon, Bryan worked on enhancing a new AWS service, implementing XML payload verification to ensure secure messaging between public/lower-clearance networks and higher-security VPCs.

At FacilityForce, Bryan applied his skills in Java, Selenium, SQL, and TestNG to develop automated regression test scripts. He also investigated and resolved software bugs within existing systems, contributing to product stability and improved performance.

Next up, Bryan is set to intern with Microsoft in Summer 2025, continuing his journey with top-tier tech innovators.



Intern Spotlight: Nat Broyles
Cyber Operations Track
Internship Host: Los Alamos National Laboratory

Nat Broyles, a student in the Cyber Operations track, completed an exceptional internship at Los Alamos National Laboratory. During this experience, Nat contributed to the CyberFIRE program, focusing on incident response and digital forensics.

Their work involved investigating both historical and synthetic cyber-attack data, gaining practical experience in identifying and analyzing cyber threats. This internship allowed Nat to deepen their understanding of advanced cybersecurity operations and response strategies in a high-security environment.

Internship Spotlights

Intern Spotlight: Beverly Ajuzie

Internship Host: Tomorrow's Leaders Today (TLT)



Beverly Ajuzie completed a meaningful internship with Tomorrow's Leaders Today (TLT), where she engaged in a variety of research-driven and analytical tasks.

As a Data Research Intern, Beverly mapped local organizations, investigated foster care services, and organized important datasets. Her responsibilities also included researching fundraising prospects and exploring concepts of moral leadership.

"During my TLT Data Research Internship, I have improved my data analysis, networking, and presenting skills. By strengthening my research and problem-solving abilities, this experience is preparing me for a career in the technology field."



Congrats!

Intern Spotlight: Damion Azubuike

Internship Host: UTSA Security Operations Center



Damion Azubuike gained valuable hands-on experience as an intern at the UTSA Security Operations Center, where he worked on a wide range of cybersecurity tasks. His responsibilities included:

- Monitoring assigned systems
- Executing security playbooks
- Handling incident tickets
- Conducting investigations

This role offered Damion the opportunity to apply his cybersecurity knowledge in a fast-paced, real-world environment.

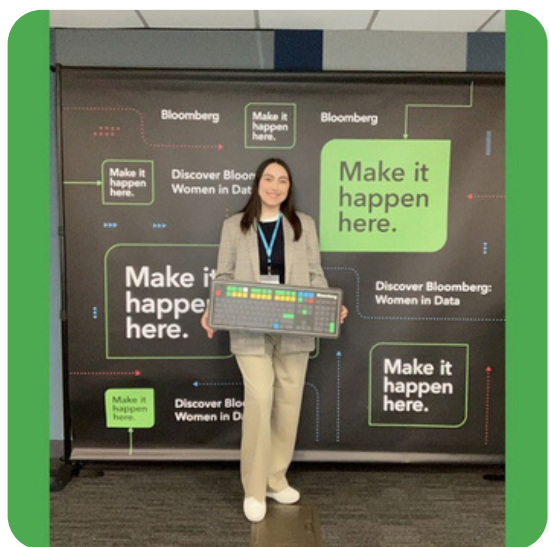
"This experience significantly enhanced my ability to analyze security events, respond to threats, and understand network security operations in a real-world environment."

Celebrating Science Semana

Computer Science Chair's, Dr. Fred Martin and Dr. Dakai Zhu, celebrated Science Semana with Computer Science students. Students had an opportunity to connect with the faculty and create on-going conversations on student success and program support.



Computer Science students, **Cassandra Gomez** and **Emily Steinmetz** were selected to participate in Bloomberg's Women in Data Forum. Fifty-three students from more than 500 applicants were selected to attend the submit at Bloomberg's Data Headquarters in Princeton, New Jersey. According to Cassandra, "One of my favorite sessions was the Data Quality session with Andrew Peszka. It provided a deep dive into the significance of data quality and best practices for ensuring the accuracy and reliability of data in data science projects, especially when working with clients. We worked in teams to tackle practice scenarios, and I had the opportunity to present our group's answers during the session. It was super fun and collaborative, and I really enjoyed the hands-on experience and teamwork aspect of it. I look forward to using these techniques in the future!"



"I am grateful to learn from this experience at Bloomberg and grow as a data professional" Emily Steinmetz

CS Department Hosts Annual Spring Picnic

On April 26, 2025, the Computer Science Department held its annual spring picnic, bringing together faculty, staff, and graduate students for an afternoon of fun and relaxation. The event provided a welcome break from end-of-semester stress, giving students a chance to unwind, connect with peers and professors, and enjoy good food and great company ahead of finals week.





UTSA Students Win Gold at Texas-Mexico Invitational Programming Contest

Under the guidance of faculty advisor Jessica Sherette, Computer Science students Jonathan De Koning, Kylee Reed, and Martin Llano proudly represented UTSA in the International Collegiate Programming Contest (ICPC) on April 4, 2025.



The team, known as Rowdy Team Alpha, is part of UTSA's Association for Computing Machinery (ACM) chapter, which oversees the university's Competitive Programming Club. The ICPC is a prestigious global competition where thousands of three-person teams solve 8 to 12 algorithmic problems of varying difficulty, ranging from beginner to expert level.

At the Texas-Mexico Invitational Programming Contest, held at Texas State University, Rowdy Team Alpha earned the Gold Medal (1st Place Award). The contest challenged teams to work under a rigorous environment using programming tools such as C, C++ (11), Java, Python, and development environments including Eclipse, Code::Blocks, and Ubuntu.

The ACM Director of UTSA's Competitive Programming Club expressed enthusiasm for the team's success, highlighting it as a significant achievement in UTSA's ongoing commitment to excellence in computing.

More information can be found here:

https://acmutsa.org/suborg_icpc/



Join the CS -CURE Research Showcase and Final Event of the Semester

UTSA Computer Science

CS-CURE

Research Showcase

Tuesday May 6th

11:30am - 12:45pm
NPB 5.140

- **Cybersecurity**
- **Human-Computer Interaction**
- **Systems**

Thursday May 8th

11:30am - 12:45pm
NPB 5.140

- **AI Algorithms**
- **AI Applications**
- **Data Science**

FREE SNACKS!

Interested in Research?

CS 4593 CS-CURE will be offered again in **Fall 2025!**

This course-based undergraduate research experience provides experience and guidance.



bit.ly/UTSA-CS-CURE

Undergraduate Research Hub

Refer to our new website for open opportunities on CS-related research projects, scholarship programs, and other resources.



bit.ly/UTSA-CS-UG-Research

Questions? Contact Dr. Amanda Fernandez via the link above.

UTSA 
Computer Science

✉ cs@utsa.edu



ARTIFICIAL INTELLIGENCE FOR EVERYONE!

Summer Camp for Rising 6th, 7th & 8th

Graders

June 9-12, 2025

8:30 AM TO 3:00 PM

UTSA School of Data Science
San Pedro I; 506 Dolorosa St. 78204

SCAN ME



tinyurl.com/utsa-ai-camp2025

Explore the Camp

Creating AI Learning
opportunities for 6th-8th
grade learners

Learn about image
processing, generative AI,
and machine learning

Create your own AI app to
solve a real-world problem

Additional Details

No coding experience is required

Cost: \$200

Student will qualify for a tuition rate
of \$35 if they qualify for a reduced-
price lunch per [TexasDepartmentof
Agricultureguidelines](#).

Email us at CS@UTSA.edu for the
code!

