



CSE Student Newsletter

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Computer Science and Engineering
University of South Florida
Tampa, Florida



<http://www.cse.usf.edu>



Dear CSE Students:

Welcome to the fourth newsletter of the Spring 2023 semester.

Message from the UG Advisor:

CIS 4083 Cloud Computing for IT is now available for registration in fall. The prerequisite is COP 3515. This is a required course for Information Technology and can count as departmental technical elective for Cybersecurity majors.

- May 12 - Spring 2023 grades visible on OASIS. This is also the last day to register for Summer Session C to avoid a \$100 late registration fee. If you are registered by this date, you may still modify your schedule during add-drop without penalty.
- May 15 - First day of Summer Session C classes.
- May 19 - End of add/drop week for Summer Session C. Students are responsible for all tuition and fees for any classes for which they are registered after the add/drop deadline.
- All summer Industry Internship, Independent Study, or Supervised Research documents need to be processed prior to the end of add-drop for summer C (May 19th). Documents submitted immediately prior to this date may not be reviewed in time to meet the registration deadline.

Note: May begins the summer orientation season. Our scheduled walk-in hours may be disrupted due to orientation activities. Please contact us in Teams to check availability before making a special trip to campus. Scheduled appointments should not be impacted.

Message from the Grad Program Assistant:

- April 26 - Spring 23 deadline for PhD students to apply for candidacy. You must have completed your major area presentation and submitted the signed forms to the department by this date.
- May 12 - Spring 2023 grades visible on OASIS. Also, the last day to register for Summer Session C to avoid a \$100 late registration fee.
- May 15 - First day of Summer Session C classes. We do not offer graduate-level classes in summer, but thesis, directed research, dissertation, and internship are all on Summer Session C dates.
- May 19 - End of add/drop week for Summer Session C. If taking credits, your schedule needs to be complete by the end of add/drop week. Students will be responsible for all tuition and fees for any classes they are registered for after the add/drop deadline.
- June 12 - Summer graduation application deadline. If you plan to graduate this summer, you should have a FINAL plan of work on file by the end of the Spring 23 semester. You also need to submit the graduation checklist to the department and apply for graduation in OASIS by June 12.

Please note that the below listing does *not* imply University or Department endorsement:

- New Undergraduate/Graduate Course: EML 4930/6930 Connected & Autonomous Vehicle Communication
- AI Research Internships for Undergraduates Opportunity
- CIBeR lab Research Experience for Undergraduates (REU) Opportunity
- Interns Present 2023 Program Communication
- Photovoice at USF Project Communication
- SportaGo: Full Stack Developer Internship Opportunity
- Star Mountain Capital: Information Technology (IT) / Technical Support Intern Opportunity

Regards,

Ken Christensen
Professor and Associate Chair of UG Affairs

New Undergraduate/Graduate Course Connected and Autonomous Vehicles

Suitable for General Elective
credit for all CSE UG majors

Course Number and Title: EML 4930/6930 Connected & Autonomous Vehicle

This course increases foundational knowledge on autonomous vehicle systems. Autonomous vehicles (AVs) have gradually begun to transform the automotive industry, reorient civil planning, and significantly impact the energy sector. According to a National Highway Traffic Safety Administration (NHTSA) report, 94 percent of the 37,461 traffic fatalities in 2016 were due to human error. AVs are designed to conduct the decision-making and perception aspects of driving, and it is hoped that will reduce accidents related to human error. Studies also show that autonomous driving technologies can significantly impact the economy, safety, and traffic congestion. Students learn about the software and hardware architectures of an autonomous vehicle. It also covers some of the perception and control techniques and an introduction to connected vehicles and their recent applications.

Course Description:

This course provides students with foundational knowledge on autonomous vehicle systems. Students learn about the software and hardware architectures of an autonomous vehicle. It also covers some of the perception and control techniques along with an introduction to connected vehicles and their recent applications. Students will also learn how to examine the safety and security of connected and autonomous vehicles through testing and verification algorithms.

Instructor:



Dr. Arman Sargolzaei's expertise is in applying linear and nonlinear control methods, machine learning, and artificial intelligence to the field of networked control systems. His mission is to enhance the quality of life for people by assuring safety, security, and privacy concerns through extensive collaboration among multi-disciplinary fields. He is the recipient of the NSF CAREER award for his research on testing and verifying the security of connected and autonomous vehicles. He was recognized with the honor of the "Faculty Research Excellence Award" for two consecutive years. He received his doctorate degrees in Mechanical Engineering and Electrical Engineering from the University of Florida, and Florida International University. He is currently an assistant professor of Mechanical Engineering at the University of South Florida (USF). Dr. Sargolzaei has published more than 70 articles in conferences and high-impact factor journals, including IEEE Transactions on Automatic Control, Industrial Informatics, and Industrial Electronics. Dr. Sargolzaei has two active and one pending patent for his research on cyber-physical systems.

AI Research Internships for Undergraduates

The Johns Hopkins University Center for Language and Speech Processing is organizing the [Ninth Frederick Jelinek Memorial Summer Workshop](#) from June 12 to August 4, 2023, this year hosted at the University of Le Mans, France. We are seeking outstanding members of the current junior class enrolled in US-universities to join this residential research experience in human language technologies (HLT) from **June 12 to August 4th, 2023**.

The internship includes a comprehensive 2-week summer school on HLT, followed by intensive research projects on select topics for 6 weeks.

The 8-week workshop provides an intense, dynamic intellectual environment. Undergraduates work closely alongside senior researchers as part of a multi-university research team, which has been assembled for the summer to attack HLT problem of current interest.

Teams and Topics

The teams and topics for 2023 are:

- Better Together: Text + Context
- Finite State Methods with Modern Neural Architectures for Speech Application and Beyond
- Automatic Design of Conversational Models from Observation of Human-to-Human Conversation
- Interpretability for Spoken Interactions: How Can We Use Embeddings to Explain Diarization Decisions?

We hope that this highly selective and stimulating will encourage students to pursue graduate study in HLT and AI, as it has been doing for many years.

The summer workshop provides:

- An opportunity to explore an exciting new area of research
- A two-week tutorial on current speech and language technology
- Mentoring by experienced researchers
- Participation in project planning activities
- Use of cloud computing services
- A \$6,000 stipend and \$2,800 towards meals and incidental expenses
- Private furnished accommodation for the duration of the workshop
- Travel expenses to and from the workshop venue

Applications should be received by **Thursday, April 13, 2023**. The applicant must provide the name and contact information of a faculty nominator, who will be asked to upload a recommendation by **Tuesday April 18, 2023**. Questions can be directed to jsalt2023@lists.johnshopkins.edu

Applicants are evaluated only on relevant skills, employment experience, past academic record, and the strength of letters of recommendation. No limitation is placed on the undergraduate major. Women and minorities are encouraged to apply. [APPLY HERE](#)

The Application Process

The application process has three stages.

1. Completion and submission of the application form by April 13, 2023.
2. Submitting applicant's CV to jsalt2023@lists.johnshopkins.edu by April 13, 2023.
3. Applicant's Faculty Nominator, whose contact was provided in stage 1, will be asked to provide a recommendation letter in support of applicant's admission to the program. The letter is to be submitted electronically to jsalt2023@lists.johnshopkins.edu by April 18, 2023

Please note that the application will not be considered complete until it includes both the CV and the letter.

Feel free to contact the JSALT 2023 committee at jsalt2023@lists.johnshopkins.edu with any questions or concerns you may have.

Team descriptions can be found on the Workshop Webpages [here](#)

Research Experience for Undergraduates (REU) Opportunity

The Cyber Identity and Behavior Research Lab is seeking an undergraduate student to participate as an Undergraduate Research Assistant during the Summer 2023 term on a research project funded by the National Science Foundation. This project's main objective is to understand the impact of a person's age on how they understand and use user authentication systems (e.g., face recognition, passwords and PINs, etc.) on their own devices. Key research objectives of this project include

1. To build a dataset of data representative of different authentication methods (e.g., password input data, touchscreen gesture data, physiological data from wearables, etc.) collected from individuals across a wide range of ages,
2. To develop authentication models and frameworks that promote the accuracy and usability of user authentication for users of different ages,
3. To understand how users perceive user authentication models, and how these mental models influence their choices concerning how they use these systems

We have funding to hire one undergraduate student as a REU for the Summer 2023 term. The REU will work 10 hours/week from May 15 – August 4, 2022 (12 weeks) at \$18/hour.

Key job tasks will include:

- Assisting in the data collection activities
- Assisting in the maintenance of data collection software
- Assisting in data pre-processing
- Assisting in data modeling and framework conception
- Assisting in the development of manuscripts
- Assisting in qualitative research tasks

It is expected that the REU

- Will be in the Tampa, FL area throughout the summer, and will be able to work on campus in the CIBeR lab when requested,
- Has a basic understanding of machine and/or deep learning (ML/DL); prior experience with ML/DL is a plus,
- Has an interest in research; prior research experience that has produced tangible outcomes (e.g., software/code, publications, technical reports, course projects, internship projects, etc.) is a plus,
- Can work well with a team,
- Can work well independently,
- Is dependable, timely, and organized,
- Has strong programming skills.

If you're interested, please fill out the form here: <https://forms.gle/gUFAn9WSBgiJv8P68>

A member of the research team will reach out to you if we wish to set up an interview.

For questions, contact Dr. Tempestt Neal at tjneal@usf.edu.



Share your Internship/Co-op Story!!

Showcase your experience!



Offered by USF College of Engineering Industrial and Management Systems
Engineering (IMSE) Department,

Interns Present is a **special program opportunity open to ALL undergraduate and graduate students of ANY engineering major at ANY year or degree level** to learn what it takes to succeed in their internship/co-op, as well as understand the value of their internship/co-op experience in their future transition from university to industry.

- Prior to their summer internship/co-op, students will receive resources on how to maximize their industry experience.
- Following their summer internship/co-op, students will share their industry experience in a “**Presentation Contest**” in Fall 2023 (September) before fellow students, faculty, and industry judges.

Why participate?

- Be recognized for all your achievements and the benefits you contributed to your employer during your internship/co-op.
- Hone your presentation skills and add to your career development portfolio and resume.
- Share with your fellow students what is expected in the real world.
- Hear first-hand about other students’ internship/co-op experiences and learn about different types of projects and industry trends.

... and to top it all off, there are **\$\$ SCHOLARSHIPS \$\$** for the best presentations!!

1 st Place:	\$500
2 nd Place:	\$250
3 rd Place:	\$150

If you are interested in participating in the Interns Present program, please email Dr. Jamie Chilton in IMSE at jmchilton@usf.edu



Do you have lived experience with mental illness or a substance use disorder? We want to offer you a confidential yet creative opportunity to share your experiences using photography!

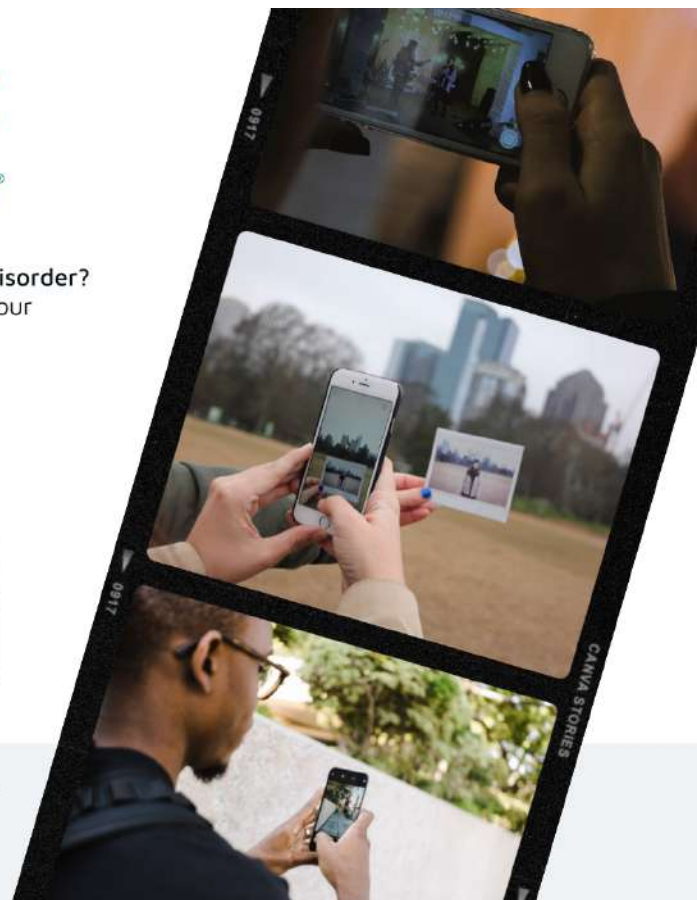
Who can participate?

University of South Florida students, faculty, and staff.

Join us!

Visit bit.ly/usf-photovoice to learn more and reserve your spot or scan the QR code.

For reasonable accommodations, please contact mcgladrey@usf.edu (FL Relay 711).



Events, activities, programs, and facilities of USF are available to all without regard to race, color, marital status, gender, sexual orientation, religion, national origin, disability, age, Vietnam or disabled veteran status as provided by law and in accordance with the university's respect for personal dignity. USF is an EO/EA Institution.

OPEN INTERNSHIP

FULL STACK DEVELOPPER

As a Full Stack Developer Intern, you will participate and lead in application development and application maintenance. Your tasks will consist of designing and developing software applications, web applications, and application optimization for stability and scalability.

REQUIREMENTS:

- Knowledge of Node.js, React, Firebase, Redis and more
- Ability to work independently and collaboratively in a team environment
- Currently pursuing a BS or MS in Computer science or similar
- Ability to communicate technical concepts simply to both technical and non-technical crowds

WORK ENVIRONMENT:

- Location: Remote
- Hours: Flexible depending on your schedule, this can be a volunteering/part-time position

This is an unpaid internship.

SportaGo is a startup with a mission to create a platform to help athletes gain exposure. Our goal is to facilitate connections with athletes, branding opportunities as well as recruiting.

If you are interested in this position,
apply at
<https://www.usf.edu/research-innovation/rf/usf-connect/sii/internwithsii1.aspx>

contact.sportago@gmail.com

We look forward to hearing
from you!



Title: Information Technology (IT) / Technical Support Intern

Firm Overview

Star Mountain is a rapidly growing specialized private investment firm focused on the large and less competitive lower middle-market – businesses that generally have between \$3 million and \$50 million in annual EBITDA (“LMM”). The firm employs three complementary strategies: private credit, private equity and secondary fund investing, all focused within North America. The Firm’s track record, business model, growth trajectory and award-winning culture provide compelling career opportunities for driven and talented individuals. Culture is a core principle which includes long-term alignment of interest with 100% of employees participating in carried interest. The Firm is over \$3.5 billion in AUM and expects strong continued growth based on its performance, distinctive investment approach and its diversified investor base of domestic and global institutions (including public pensions, corporate pensions, insurance companies, endowments, foundations, and family offices) and individuals. Star Mountain values team players with positive, solutions-based attitudes complemented by a strong work ethic and is heavily committed to long-term training and career development. The Firm is 100% employee-owned with material long-term wealth creation opportunity for long-term, entrepreneurial professionals. Dynamic team of over 60 full-time people and 40+ Senior Advisors / Operating Partners.

The senior team has over 500 years of collective investment experience including prior leadership experience at Blackstone, Goldman Sachs, Thoma Bravo, Morgan Stanley, J.P. Morgan, Merrill Lynch, Citigroup and Barings.

For the last three consecutive years, Star Mountain was recognized as one of the Best Places to Work by both Crain’s and Pensions & Investments.

The Technical Support Intern will support Star Mountain with general technology management in either the Tampa This represents a unique opportunity to join a reputable, entrepreneurial team as an integral part of: (i) the for-profit business, which invests in established U.S. small businesses, as well as (ii) the non-profit foundation, which focuses on economic development, job creation and health & wellness.

Responsibilities:

- Ensuring the successful operation of all the office’s technological processes; assisting staff with troubleshooting as needed.
- Managing on-site desktop support, system installation, software installation and record keeping.
- Maintaining proper functionality of audiovisual equipment, Microsoft Office products, and other desktop / mobile applications.
- Assisting with software updates, network connectivity troubleshooting, file organization, printer & copier support, and server administration.
- Supporting general organization and labeling of hardware, wiring and other technology.

Compensation:

- Starting pay begins at \$15/hour. Role is eligible for overtime and merit increases based on tenure.

Qualifications:

- Currently enrolled in an undergraduate program, ideally focused on IT / technology management (preferably with a hardware emphasis).
- Strong familiarity with Microsoft Office, mobile applications, and technological support processes.

Desirable Attributes:

- Ability to commute to Star Mountain’s downtown Tampa office.
- Highly organized, detail-oriented and a quick learner.
- Positive, “can do” attitude of always trying one’s best.
- Sense of ownership and pride in work, firm and culture
- Strong people and communication skills, both verbal and written.
- Ability to manage competing deadlines in a fast-paced entrepreneurial work environment.

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www.StarMountainCapital.com