Research Experiences for Undergraduates (REU) in Edge Computing

Department of Computer Science
Texas State University
https://reuec.wp.txstate.edu/
May 28, 2024 – Aug 2, 2024

In the summer of 2024, this REU site will be organized completely in person.

Program Summary

The primary objective of this program is to motivate undergraduate students to pursue research careers and instill in them the spirit of innovation via intensive summer research projects in edge computing. Edge computing is a key to efficiently and affordably realizing the growing internet of things (IoT) and cyber-physical systems(CPS) where tremendous data is generated at the edge of the networks by numerous sensors and end devices. This project will study new trends and enable technologies in edge computing including real-time embedded systems, wearable devices, IoT security, cognitive-neuroscience inspired reinforcement learning, and data science. The site emphasizes the participation of a diverse group of students, in particular, women, minorities, first-generation and non-traditional students.

Mentors and Topics

Dr. Kecheng Yang	**Real-Time Autonomous Driving**
Dr. Anne H.H. Ngu	**Wearable Sensing Systems**
Dr. Mylene C.Q. Farias	**AI-based Diagnostic Systems**
Dr. Heena Rathore	**Humanizing LLM**
Dr. Apan Qasem	**ML Compilers for Scalable Graph**

Benefits

- Generous stipend ($700 per week for 10 weeks).
- Meal allowance ($140 per week for 10 weeks).
- Free on-campus housing.
- Reimbursement for round-trip travel expenses.
- Working on research projects that will advance the state of art in edge computing.
- Learning how to write quality research papers and give research presentations.
- Building a network of supportive community for future graduate career.
- Improving future career perspectives.

Important Dates

Application is Open until All Positions Are Filled.

Review Starts	**February 15, 2024**
Program Begins	**May 28, 2024**
Program Ends	**August 2, 2024**

Who can apply

- Applicant must be an undergraduate student of US citizen or US permanent resident.
- High school graduates who have been accepted at an undergraduate institution but who have not yet started their undergraduate study are also eligible to participate.
- Applicant should have at least completed data structures or computer algorithms classes or their equivalence.
- Applicant should be proficient in a programming language.
- Women, minorities and two-year college students are particularly encouraged to apply.

How to apply

Application Materials
- Electronic application form on NSF ETAP.
- An electronic copy of the most recent transcript, including the courses currently being taken in Spring 2024. An unofficial copy of the transcript is sufficient.
- A personal statement — 500 words, include your career goals and the reasons for wanting to do research and participate in this REU program.
- A resume/CV.
- One letter of recommendation from a faculty member who can assess your ability to do research.

Application Submission Instructions
Please apply via NSF ETAP at https://etap.nsf.gov/award/201/opportunity/7889.

For more information, please visit the program website
https://reuec.wp.txstate.edu/.