Research Experiences for Undergraduates (REU)
Department of Computer Science
Texas State University
May 31– July 30, 2016

Multidisciplinary Research in Internet of Things (IOT)

http://reuiot.cs.txstate.edu/

Why REU?

The primary objective of this program is to motivate undergraduate students to pursue research careers via intensive summer research projects in IoT. Internet of Things (IoT) represents a fascinating vision for the next generation of Internet where everyday physical objects can be attached with sensors and seamlessly integrated with the Internet. IoT will bring endless opportunities and impact every corner of our planet. With IoT, we can build smart cities where parking space, urban noise, traffic congestion, street lighting, irrigation, and waste can be monitored in real time and managed more effectively. We can build smart homes that are safe, energy-efficient and convenient. IoT can transform manufacturing, making it leaner, smarter and raising the prospect of bringing outsourced manufacturing jobs back to USA. While an explosive number of potential IoT applications can be built and deployed, there is a need for a general framework on how to engineer those applications such that the system is robust, flexible and maintainable

The students will spend nine weeks in the summer on site working in groups with supervising faculty member on a practical IoT research project. Students will be assigned to an on-campus dormitory for inclusion in a supportive campus community. Students will be closely mentored on research processes, research ethics, advanced technology development and both written and oral presentation skills. They will also participate in practical professional development activities such as workshops for graduate school application and field trips to industrial laboratories. The program will also include a fun social event at the crystal-clear San Marcos River.

Mentors and Topics:

Dr. Byron J. Gao ……………..Data Mining in IoT

Dr. Anne H.H. Ngu ………….Flexible IoT Management Platform

Dr. Yijuan Lu………………… Amazon Pickup Challenge

Dr. Rodion Podorozhny…… Design and Verification of IoT System

Dr. Habile Zare……………….Gene Network Analysis

Dr. Vangelis Metsis………….IoT for Human Physiological Data Analysis

Important Dates

Application due ………………………. **March 1, 2016**
Decision notification…………..……… April 4, 2016
Formal acceptance letter …………….. April 15, 2016
Program begins ……………………….. **May 31, 2016**
Program ends ………………………….. **July 30, 2016**

Who can apply?

‣Applicant must be a US Citizen or US Permanent Resident
‣Applicant should have at least completed data structures or computer algorithms classes or their equivalence
‣Good knowledge of at least one programming language
‣Women, minorities, first generation, and two-year college students are encouraged to apply

Benefits

‣Stipend: $500 per week
‣Travel re-imbursement of up to $600
‣Free on-campus housing
‣Meal allowance: $100 per week

How to apply?

Review of applications will begin on March 1, 2016 and continue until all ten positions are filled. Application must be electronically submitted via _reuiot@txstate.edu_ with the following required supporting documents.

1. Completed application form. Download the application form from program website. Students should indicate the order of preference of the five main research topics.

2. A most recent, electronic copy of an official transcript, including the courses registered for Spring 2016. A scanned copy of an official transcript is sufficient.

3. One letter of recommendation from a faculty member who can assess your ability to do research.

4. A one-page resume.

5. A 500 words description of career goals including reasons for wanting to do research and participate in this REU program.

Contact:

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