

**Texas A&M University**  
**NSF- Research Experience for Undergraduates (REU) program**  
**Computing for Disasters**

**APPLICATION DEADLINE:** [March 1, 2015](#)

**PROGRAM DATES:** June 2, 2015 – August 7, 2015

**PROGRAM INCLUDES:**

- \* Hands-on research with responders
- \* Seminars and brown bags on research & career development
- \* Tours of TAMU laboratories & NASA Johnson
- \* Weekly social activities with other students, mentors, & faculty

**AWARD:**

- \* \$5,000 for your research work for the summer
- \* \$1000 meal allowance
- \* \$1000 housing allowance (if not living in luxury housing provided)
- \* Actual travel expenses to and from Texas A&M University

Summer 2015 will mark the third year that the Department of Computer Science and Engineering at Texas A&M University is offering a summer REU Program, Computing for Disasters. The program spans 10 weeks and involves undergraduate students from Texas A&M as well as students from other colleges and universities from across the United States. It is hoped that the students participating in the CSE REU Computing for Disasters program will make significant contributions to ongoing faculty research and, more importantly, will gain an appreciation for and an interest in graduate school and a future research career.

Disasters pose a comprehensive need for computing, where data must be collected, transmitted, transformed, and displayed to stakeholders in real-time, leading to the acronym of critical real-time computing and information systems or CRICIS. Disasters are a natural focus because it brings together research in "physical science and engineering (e.g., sensors, unmanned systems, models, etc.), social sources of data (e.g., social networking, citizen science, etc.), transfer and storage of data (e.g., networks, cloud computing, context-aware networks, data warehousing, security, privacy, etc.), transformation of data into useful information (e.g., computer vision, human computation, etc.), real-time formal and informal decision making support (e.g., artificial intelligence, optimization, visualization, interfaces, cognitive science, CSCW, policy, etc.)." However, disasters are more than a "big tent" offering a common theme, they encourage expansion of existing research topics in new directions because of the extreme temporal, geographical, stakeholder, and data scales. In addition disaster management requires a new style

of research which emphasizes a holistic, multi-disciplinary approach similar to the Smart Health and Well being programs at NSF.

Students are offered a specific project based on their interests and course work as part of the acceptance process. They work with responders at Disaster City in Week 1 and learn about human-centered design in computing, then from week 2-9 work with their faculty and graduate mentors on individual research projects. They also meet weekly as a cohort for brown bag seminars on how to conduct research, career paths, and work/life balance, and in week 10 present at two poster sessions. Students also tour NASA Johnson Space Center and interact with industry and have lots of social experiences.

**ELIGIBILITY:**

- \* Undergraduate students majoring in computer science, computer engineering, or related field
- \* 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
- \* U.S. Citizen or permanent resident
- \* GPA of 3.0 or higher
- \* Plan to graduate no earlier than December 2015
- \* May not enroll in additional academic courses during the summer session
- \* Minorities and women strongly encouraged to apply

[Click here to apply or for more information.](#)