

REU Site: Assistive Technologies for People with Disabilities

CSE Department of the University of Texas at Arlington (UTA)

Summer 2023 (June 10- August 16)

Overview:

This Research Experiences for Undergraduates site in the CSE Department of the University of Texas at Arlington (UTA) will engage a diverse cohort of undergraduate students in a research experience with the development of assistive technologies for people with disabilities to address socially good causes through invention and creation. The research themes include innovative applications, tools, and systems for communication, monitoring and tracking, social interactions, assistive robots, visual and hearing aids, and smart care. Participants will receive purposeful experience in leadership, ethics, communication, academic writing skills, hands-on training, and learning group-based collaboration. The program will help enhance students' numbers, quality, and equity in research-oriented computing, especially females and minorities. It will also expand their interest and ability to conduct basic research, hone their professional skills, and prepare them for career paths and graduate school. The research program will provide a valuable undergraduate experience through scholarly activities, advancing state-of-the-art artificial intelligence, machine learning, robotics, sensors, and human-computer interfaces. The activities will be synergistically engrained in innovation and discovery, with intellectual depth and real-world impact. Participants will be immersed in a multi-disciplinary research community of students, professors, and application domain experts to pursue essential discovery and innovation through a collaborative framework. Students will acquire publication and dissemination skills, including technical writing, oral presentation, literature review, and authoring papers.

Program Schedule and Activities:

This REU program consists of a 10-week summer session, from June 10 to August 16, 2022. The student participants will have the opportunity to utilize the summer program to gain course credit by enrolling in a 3-credit hour seminar course during the 2022 summer session at UTA. Non-UTA students will be required to enroll at UTA as summer students and are encouraged if they desire to do so, to arrange, through their home institutions, for the transfer of these credit hours towards their degree programs. During this program, the students are expected to participate in both individual and team research activities, report on their progress, and attend weekly group meetings.

Stipend:

Each recruited student will receive a stipend of \$6,000 for the duration of 10 weeks; additional benefits may include some funds for lodging and subsistence based on need. Upon acceptance, the REU program will supply each student with the necessary documentation to enroll and, if so desired, to register for the summer course and assistance will be available to help in the search for accommodations. Students who drop out of the program, or whose assistantships are terminated due to unsatisfactory performance, will not receive the remainder of their stipend from the point of termination of their research assistantship.

Criteria & Application Package:

Only computer science or computer engineering majors (or those in a closely related field) who are going to be a sophomore, junior, or senior during the 2022-2023 academic year are eligible to participate in the program. Applicants must be U.S. citizens or Permanent Residents. A minimum

GPA of 3.0 is required. Talented students, whose GPA is less than (but close to) 3.0 will also be considered. These students are asked to provide a detailed statement explaining the reasons for their current GPA. Interested applicants need to submit a completed application form, a copy of their current transcript issued by the university (an unofficial copy is sufficient for the application, but an official copy will be required from accepted applicants once they have been selected), and two letters of recommendation (preferably by the applicant's academic professors and advisors). The applicants will be ranked based on their GPA, academic and extra-curricular accomplishments, experience, courses taken, and recommendation letters. If necessary for the decision, the top twenty finalists will be interviewed and selected. Women, minorities, or members of any protected class are strongly encouraged to apply.

Deadline and Submission Procedure:

Applications can be submitted electronically online, the application deadline of March 30, 2023:

<https://www.nsfetap.org/>

For electronic submissions, recommendation letters may also be directly by the reference writer to iahmad@cse.uta.edu. All other materials may be sent in one e-mail to the same address (iahmad@cse.uta.edu).

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