Position Summary
The Department of Physics and Astronomy is seeking a part-time Computer Science Intern to build a key component of an augmented reality (AR) sandbox. The intern will report to and work closely with the Principle Investigator, Dr. Hai Fu, and his key collaborator, Jeremy Swanston, MFA. The role is to create a program on a Linux desktop that renders realistic animations of planets’ motion under the gravitational influence of surrounding matter. The distribution of matter will be taken from the arbitrary landscape of a sandbox with a 3D camera. This AR sandbox will serve as an interactive educational tool for students K-12.

Responsibilities

• Develop a robust program for 2D animation renderings on a Linux desktop.
• Develop a similar app for an Android tablet device that works in tandem with the desktop.
• Assist team members in the development of other components of the AR sandbox.
• Listen to and incorporate team feedback.

Required Qualifications

1. Currently enrolled University of Iowa upper-level (junior or senior) undergraduate student that is in good academic standing
2. Availability for the full 2016-17 academic year
3. Proficiency in C++, Java, or python
4. Strong understanding of computer graphics (strong interests in game development is preferred)
5. Ability to develop software in a Linux environment
6. Some knowledge of and/or interest in Physics and Astronomy
7. Excellent communication skills and detailed oriented
8. Ability to work independently as well as in a collaborative team environment

Position Details

1. Part-time, paid internship at $10-$15/hour (depending on experience) for up to 10 hours per week
2. Office hours must be scheduled between Monday through Friday, 8 a.m. – 4:30 p.m., and will work on campus at Van Allen Hall
3. Start date is October 2016
4. This offer is for half a year with option to work through academic breaks

To Apply
Please send your current resume and links of 3-5 programming samples to Dr. Hai Fu (hai-fu@uiowa.edu) with “AR Sandbox Intern” in the subject field.