NC STATE UNIVERSITY

Center for Nuclear Energy Facilities and Structures
Construction Automation and Robotics Lab

The Center for Nuclear Energy Facilities and Structures (CNEFS) and Construction Automation and Robotics Lab (CARL) at North Carolina State University has an opening for a postdoctoral associate. An ideal candidate should have the following qualifications:

Required qualifications:

1. PhD in Computer Science or related field
2. Extensive experience in one or more of the following areas Computer Vision, Robotics, Computer Graphics/Game/Animation, and AR/VR/MR.
3. Strong written skills and proven academic track record of publications
4. Preferred, but not required, software engineering experience.

This postdoctoral associate will be assigned to a 2-year research project funded by the Department of Energy program called ARPA-E (https://arpa-e.energy.gov/). This project attempts to reduce construction cost and time of highly specialized facilities through advances in AI/ML and robotics. We will be using visual sensors (cameras and laser scanners) to automate condition assessment of building components, unmanned vehicles (ground and aerial) for automated visual data collection, and AR/VR/MR for bringing virtual and scanned (point clouds) objects into a virtual space to simulate and manage construction. There will be a high chance for commercialization as research questions are driven by very specific industry problems.

There will be career development through direct faculty-oriented mentorship and interaction with industry leaders and researchers at the Idaho National Laboratory.

If interested, please send your detailed CV, two publications, and contact information for two references to Dr. Kevin Han via email - kevin_han@ncsu.edu. If you have any commercialization experience (patent, startup, software development, etc.), please mention in the email. The ideal start date is October 1, 2019 but could be earlier.

About CNEFS at NC State University

Former students at CNEFS have established themselves as leaders in academia as well as the industry in many countries across the globe. We have had alumni who have been featured on Wall Street Journal for being successful entrepreneurs. Another has Chaired major technical committee in ASME. A few of the alumni serve as faculty members in USA, UK, South Korea, and Egypt. Others serve in leadership roles in nuclear energy-related organizations such as Westinghouse Electric, Duke Energy, AREVA, Electric Power Research Institute (EPRI), Korean Atomic Energy Research Institute (KAERI), etc. Some graduates work in non-nuclear energy industries such as insurance sector, automobile industry, traditional structural engineering firms, and network/telecom technology.

Learn more about:
CNEFS - https://www.ccee.ncsu.edu/cnefs/
CARL - https://go.ncsu.edu/carl