NSF-funded Graduate Assistantship at the NCSA and iSchool

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Accessibility of High-Performance Computing Resources
This is a joint position between the National Center for Supercomputing Applications (NCSA) and the School of Information Sciences (iSchool). This is a great opportunity for someone interested in user interface and universal design to high-performance computing technologies. The National Center for Supercomputing Applications (NCSA) has received NSF funding to develop the next generation user interfaces to make GPU-based high performance computing resources easier for researchers to use (more information can be found at the NCSA DELTA project website). As part of the Delta Project, NCSA is investigating the accessibility of current user interfaces to high performance computing systems to identifying improvements in accessibility and usability by people with disabilities. The person will be evaluating existing user interfaces for accessibility, helping to define changes to make user interfaces more accessible, including conducting usability tests to identify accessibility issues and verify improvements. Accessibility and usability are very much intertwined in this project. Just like curbs cuts help more than just people in wheelchairs, accessibility features added to user interfaces make the interfaces more usable by everyone.

Under Dr. JooYoung Seo’s supervision, the student will be working closely with his accessible computing lab in the iSchool and the NCSA’s DELTA project team. There is at least 2 years of funding for the project and it may be extended.

Required Skills
- Front-end web programming: HTML, CSS, JavaScript, XML, and SVG
- User Interface Design
- Usability Testing
Preferred Skills

• Experience with data science environments (e.g., Python, R, Jupyter Notebook, tensorflow)
• Knowledge of accessibility standards
  o W3C Web Content Accessibility Guidelines (WCAG)
  o W3C Accessible Rich Internet Accessibility (ARIA) Specification
• Knowledge of assistive technologies like screen readers, magnifiers and operating system accessibility features are extra plus.
• Experience working with people with disabilities