

NCSA Internship Program for CI Professionals Home

This is the Home page for NSF grant 1730519, "NCSA Internship Program for CI Professionals"

<http://www.ncsa.illinois.edu/enabling/cybersecurity/cip>

<http://www.istern.illinois.edu/news/cip.17.html>

Abstract

This project is NCSA's pilot internship program for cyberinfrastructure (CI) professionals, designed to address the shortage of a workforce with the specialized skills needed to support advanced CI operations. The program both 1) provides internship opportunities for individuals who want to gain first-hand experience in the CI operations of a major supercomputing center and 2) develops and refines instructional materials that are openly distributed for use by other centers and institutions to train CI professionals. Program interns work directly with a group of engineers in one of areas of CI focus to gain hands-on experience in the deployment and operation of cutting-edge high-performance computing (HPC) infrastructure at a leading HPC center. Graduates of this internship program will enter a workforce that will develop, deploy, manage and support advanced CI at other universities, centers, and industry to meet the needs of the national computational science community. By doing so, the project serves the national interest by promoting the progress of science and advancing the national prosperity and welfare.

Managing modern CI that supports scientific research is a challenging task which requires deep and broad knowledge and experience to plan, acquire, deploy, and operate complex HPC resources. This project helps prepare the next generation of system engineers and administrators knowledgeable about computer architecture, storage technology, interconnect, operating system, cluster software stack, user management, job management, resources monitoring, networking, and security, as well as best practices in the field. The goals for this internship program include expanding the talent pool by attracting and supporting professional development of minority and underrepresented groups in the field of CI, providing motivated individuals the opportunity to obtain real-world CI operational experience through a short, full-time program in an area already supported by NSF for its programmatic needs, and developing training materials and identifying best practices that will be contributed back to the community to be used stand-alone or in combination with an internship program to train next-generation CI professionals.

Update

The program has received 3 No Cost Extensions to continue operations through July 31 2023. In the six years of operations we have had 33 interns attend the sessions, and more than 80% of them have had employment in CI Operations or other IT roles.

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External Links

- [Award Abstract #1730519](#) (program page: [NSF CyberTraining](#))
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