

**Applications reviewed September 18–December 1, 2018**



## Duration and location

CSCNSI is a paid 10-week intense research internship held at the Los Alamos Research Park in Los Alamos, New Mexico.

Los Alamos provides the perfect mountain setting and warm weather for a summer full of hiking, biking, rock climbing and social activities while gaining job experience.

## How to apply

Undergraduate and graduate students in all majors who have computer science, engineering, information technology, or other related experience are encouraged to apply. Students must be enrolled in an accredited U.S. university, meet LANL student program requirements and have a moderate understanding of the Linux operating system. *See our website for more details.*

## To apply submit:

- current résumé
- unofficial transcript, including GPA
- letter of intent describing
  - your research interests and experience
  - why you are interested in CSCNSI
  - overall strengths and goals

**Send all application materials and questions to:**

[apply-cscnsi@lanl.gov](mailto:apply-cscnsi@lanl.gov)

*Students hired into these positions have the potential to work toward a regular position within a Division that will require a Q Clearance. To obtain a Q Clearance, an individual must be at least 18 years of age; U.S. citizenship is required except in very limited circumstances and must meet eligibility requirements for access to classified matter. See DOE Order 472.2 for additional information. Applicants selected will be subject to a Federal background investigation.*

# 2019 **Computer System, Cluster and Networking Summer Institute**

**May 28–August 2, 2019**



*Technical program providing hands-on experience building cluster computing and high speed networking infrastructure used for real-world research.*

# An innovative and proactive approach to realizing exciting career possibilities!

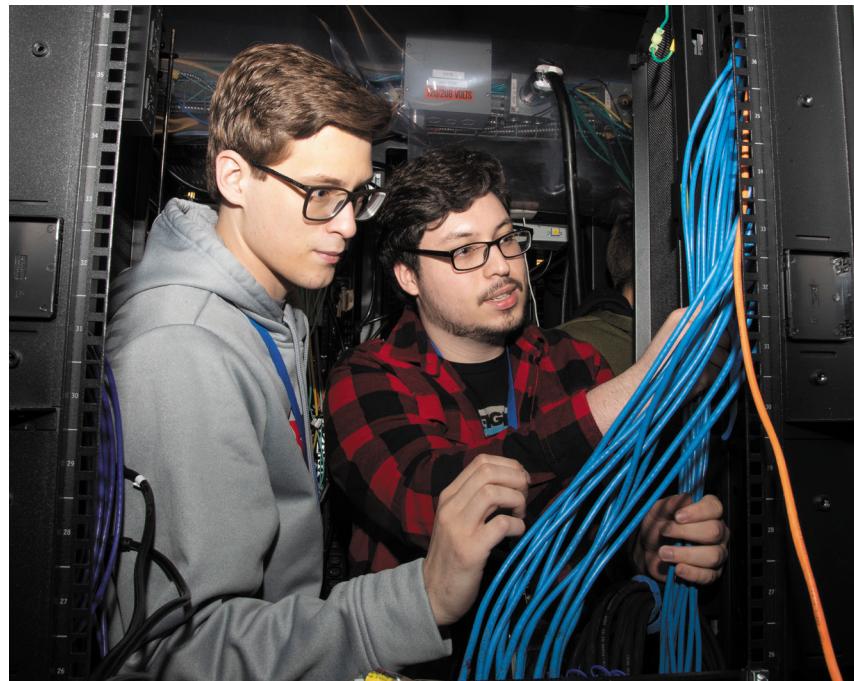
## Description

The Computer System, Cluster and Networking Summer Institute (CSCNSI) at Los Alamos National Laboratory is a focused technical enrichment program for students currently engaged in computer science, computer engineering, or a similar major. CSCNSI program includes classroom, laboratory and professional development components. You will obtain a thorough introduction of the techniques and practices of cluster computing.

### Students will:

- Receive **hands-on labs** structured around the building, configuring, administering and testing of cluster computers
- Tackle current challenges in **high performance computing** (HPC) environments
- Attend extensive seminar series led by practitioners and researchers actively engaged in HPC-related topics
- Collaborate on small teams under the guidance of **mentors** to complete real-world HPC projects
- Actively **build computer clusters** and execute real-world research projects
- Gain experience in communicating their work through posters and oral presentations to LANL staff members
- Be exposed to **career opportunities** within the Laboratory

Previous students participated in a supercomputing facility tour and engaged with leading designers of the Mars Rover.



## Professional development

- Team collaboration
- Résumé writing
- Technical poster development
- Technical presentation skills

CSCNSI exposes students to a variety of HPC-related topics via instruction, tutorials, seminars and guest lectures.

In addition, HPC Division and LANL Student Program Office host a wide variety of exciting technical lectures, classroom instruction, tutorials and hands-on work.

## Past projects

- Evaluating container image distribution methods for HPC
- Utilizing elastic stack for modular log aggregation
- Analyzing network booting challenges for supercomputers
- RAID and erasure coding evaluations for novel file systems

*"It was a great experience. I came hoping to learn about a new facet of computer science and I did just that. Being part of the amazing community of Los Alamos and networking with people at LANL has made me consider coming back to the Lab." – 2017 Student*

*See a list of previous projects on our website!*