LANL Summer Schools 2019

Educational internship opportunities for undergraduate and graduate students

The goal of summer schools is to augment student learning through focused lectures coupled with hands-on real-world projects. The Information Science & Technology Institute (ISTI) organizes, co-sponsors, and/or supports the following summer schools to address emerging challenges in national security, societal prosperity, and fundamental science.

Visit http://isti.lanl.gov for more information and to apply to these internship opportunities.

- **Parallel Computing Summer Research Internship** [closes 1/25/19]
  Providing students with a solid foundation in modern high-performance computing (HPC) topics integrated with research on real problems encountered in large-scale scientific codes
  **Target Student:** Upper-level undergraduate and early graduate students; [http://parallelcomputing.lanl.gov](http://parallelcomputing.lanl.gov)

- **Computer System, Cluster, and Networking Summer Institute (CSCNSI)** [Applications reviewed September 18th – December 1st 2018 or until the 12 positions are filled]
  Learn the basics of high-performance computing system administration. Students work in small project teams with the guidance of mentors to execute real-world projects on computer clusters that they have assembled and configured.
  **Target Student:** Upper-level undergraduate and early graduate students; [http://clustercomputing.lanl.gov](http://clustercomputing.lanl.gov)

- **Co-design School** [closes 1/25/19]
  Team research project for graduate students from varying backgrounds (usually CS, computational physics, and mathematics) to work on a computational co-design topic, such as novel programming models on a specific application, such as Hydro- and Molecular dynamics.
  **Target Student:** Upper-level graduate students; [http://codesign.lanl.gov](http://codesign.lanl.gov)

- **Data Science at Scale School** [rolling]
  The Data Science at Scale School is active year-round to recruit outstanding students to the laboratory to participate in data intensive science projects. Particular focus is placed on using big data technologies to gain insights from science data.
  **Target Student:** Upper-level undergraduate and graduate students; [http://datascience.lanl.gov](http://datascience.lanl.gov)

- **Cyber Security Summer School** [closes 1/18/19]
  The Cyber Summer School prepares students for careers in cyber security. The school has two tracks: incident response where students will learn the necessary concepts and skills for responding effectively to cyber security incidents, and cyber research where students will apply their skills to develop innovative solutions to help address national cyber threats.
  **Target Student:** Upper-level undergraduate and graduate students; [http://cyberfire.lanl.gov/school](http://cyberfire.lanl.gov/school)

- **Applied Machine Learning Summer Research Internship** [closes 12/14/2018]
  Team research projects for graduate students from varying backgrounds (computer science, statistics, mathematics, or domain science fields) to apply machine learning methods to real-world scientific data analysis problems.
  **Target Student:** Upper-level Graduate students; [http://aml.lanl.gov](http://aml.lanl.gov)

- **Quantum Computing Summer School Internship** [closes 1/18/19]
  Participants will be exposed to the theoretical foundations of quantum computation and will become skilled at programming commercial quantum computers, such as those developed by D-Wave Systems and IBM.
  **Target Student:** Upper-level undergraduate and early graduate students; [http://quantumcomputing.lanl.gov](http://quantumcomputing.lanl.gov)

**LANL student summer fellowships:**

- **Computational Physics Workshop**
  http://compphysworkshop.lanl.gov

- **Los Alamos Dynamics Summer School**
  http://ladss.lanl.gov