CERN openlab Student Programme 2012

pen up your mind!

CERN openlab Student Programme

CERN is where the World Wide Web was born over 20 years ago and where dizzying challenges in networking, data processing and storage abound!

Located just outside Geneva, straddling the border between Switzerland and France, CERN is the world's leading particle physics research institute. CERN explores what matter is made of and what holds it together by accelerating protons to a fraction under the speed of light and then smashing them together. The Large Hadron Collider (LHC) is now operational and generates some 25 million gigabytes of data per year. More than ever, CERN will be a particularly thrilling place this summer!

Through close collaboration with leading industrial partners, CERN acquires early access to technology well before it reaches the general computing market. CERN openlab is the framework for evaluating and integrating cutting-edge IT technologies and services. Together with our partners and contributor, HP, Intel, Oracle, Siemens, and Huawei, we have R&D activities on:
- Computer Server Platforms and Related Software
- Large Scale Databases
- Automation and Controls Software
- Cloud Computing
- Wireless Networks Research

By joining the CERN openlab Student Programme, you will work with some of the latest hardware and software technologies and see how advanced IT solutions are used in high energy physics.

You will have the opportunity to attend a special series of lectures given by CERN IT experts on advanced CERN-related topics and to visit the laboratory facilities and experiments.

The CERN openlab Student Programme is much more than just a summer at CERN. It can lead to follow-on projects in your home institute at bachelor's, master's or Ph.D level. It may even inspire you to become an entrepreneur in cutting-edge computing technologies.

Who should apply?

B.Sc., M.Sc., or Ph.D. students in Computer Science or Physics, interested in working on advanced IT projects for two months during the period June-September 2012, with the possibility of follow-on projects in their home institutes.

How to apply?

The application must be submitted to www.cern.ch/jobs by 30th March 2012 and the following documents should be attached to it: student's CV, recommendation letter(s) by university supervisor(s) and a motivation letter with an indication of the preferred area of work. Incomplete applications will not be considered. Confirmation of student placement will be made to the students and their supervisors by early May.

Stipend

The stipend of CHF 5000 is sponsored bz CERN and the CERN openlab industrial partners and should cover travel, accommodation and living costs during the two-month stay. Students must have their own health and accident insurance.

Students projects

Several projects and groups at CERN will participate in the openlab student programme, including the WLCG (Worldwide LHC Computing Grid). Examples of projects that students undertook in 2011 include:
- Exploitation of the Linux performance monitoring interface (perf)
- Data analysis scalability tests on a research processor
- Cloud computing for control systems
- Integrity checking and monitoring of disk server files
- Benchmarking of a native object data base (ZODB)

A report on the work project carried out is to be handed in at the end of the student stay.

Other activities

A series of lectures by experts in various domains of CERN-related High Throughput Computing, and study tours to universities and CERN facilities are part of the programme. The openlab students may also participate in a wide range of physics and technology lectures that are part of the general CERN summer student programme.

Open up your mind and apply!

www.cern.ch/openlab