



# STUDENT INTERNSHIP

The Information Technology Center (ITC) of Southwest Research Institute, seeks a CS major with a 3.0 GPA or higher to work on the design of a Network Operations Center (NOC) for the SwRI network. The NOC is intended to provide the ITC managers, analysts, and technicians with a “weather map” of the state of the network at any moment. Data should be archived so that recent and long-term trends can be discovered. We envision the primary presentation method will be through graphs and tables appearing in one or more windows and that a multi-monitor system will be used.

This job involves the following tasks and skills:

- Ability to organize and write a clear design document for the proposed NOC
- Examination of the state-of-the-art in open-source software for passive and active network monitoring and management
- Identification of the key parameters to be monitored
- Identification of the key locations and mechanisms for data collection
- Specification of the hardware and software needed to provide responsive displays and accurate data collection

Familiarity with C/C++, PERL, Java, and/or Python programming is to the applicant’s advantage. Experience with LINUX/UNIX is also desired. Knowledge of Ethernet, the TCP/IP protocol stack, and SNMP is important for the performance of this design study. (Position 32-00526)

Apply at <http://www.swri.org/hr/default.htm>.