# Electrical Engineering / Computer Engineering Interns and New Grads

00049188 EE / Computer Eng. Intern & New Grads --- NEW 00051072

Interns—Do you want to join over 300 other interns for a summer of learning, networking and fun?

**New Grads--**Do you want to develop systems that contribute to solving our nation's most critical problems? Do you want to be mentored by engineers and scientists that are experts in their fields?

We're making a difference every day—working for a safer, healthier, and more secure nation and world.

Come and create the foundation for your career. At MITRE, you will do this by working on a variety of projects that support our Government sponsors and by taking advantage of the many learning opportunities—classes at the MITRE Institute, continuing education through our Educational Assistance program, attending tech talks and innovation exchanges, publishing and presenting at technical forms and more.

Our workplace reflects our values. We want you to start and grow your career at MITRE so that you can experience the gratifying work, our competitive benefits, exceptional professional development opportunities, and a culture of innovation that embraces diversity, inclusion, flexibility, collaboration, and career growth.

## Electrical Engineering / Computer Engineering Interns and New Grads do?

MITRE's Electrical Engineering / Computer Engineering interns and new grads help to design, analyze, and implement communications and electronic systems across a diverse set of environments. This may include working on signal processing technologies including sensors, antennas, photonics and more. Interns help build and support an effective environment that supports and promotes interoperability between systems, as well as unified infrastructure that satisfies current and future customer needs. They also work on identifying and deploying appropriate security mechanisms to include behavior tracking, authentication, accreditation, response measures, and audit.

#### What are some examples of last year's projects?

- Modeled an FPGA signal generator for encrypted GPS signals in C++ to enable more efficient testing of software components.
- Perform Interoperability tests between different providers to keep track of the testing process, do data analysis, and perform any further tests for clarification
- I was responsible for determining key information for mission capability areas and developing prototype solutions and managing a lab infrastructure
- Adding features and capabilities to an existing embedded system, and helping to create a test framework for signal jamming.
- Reverse engineer specific power supply for faults and vulnerabilities.
- Working in the remote sensing department to create masks to block out clouds (unwanted information)

## What does an ideal Electrical Engineering / Computer Engineering Intern or New Grad have:

- Currently pursuing a degree in Electrical Engineering, Computer Engineering, Computer Science, Mathematics, or similar field, with an interest in communications or other relevant technical disciplines.
- Understanding of technologies for the communications architecture such as coding and modulation techniques for the physical layer, data protection algorithms for the application layer, or digital signal processing capabilities.
- Understanding of communication systems and operations; layered architectures; design principles of extensible communication systems, interference analysis, digital filter design and analysis.
- Sustained excellence in academic performance
- High level desire to help their nation solve its most critical problems
- Exhibits the characteristics of a continuous learner

#### **Additional Information**

\*70% of MITRE's full-time jobs require US government security clearances; therefore, many internships and full time positions require that the candidates be clearable. MITRE does not provide sponsorship for those that need it currently or in the future.\*

\*\*Many of our jobs welcome those students who have an interdisciplinary approach to problem solving.\*\*