Computer Science/Software Engineering Internships and New Graduate Opportunities <u>00049162 CS / SW Eng Interns & New Grads</u> --- NEWW number 51068

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.

What do MITRE Computer Science/Software Engineering Interns and New Grads do?

Working alongside MITRE engineers or on teams in one of our labs, MITRE Computer Science/Software Engineering Interns and New Grads supply high-impact consultative software engineering expertise that yield affordable, effective and efficient solutions that address the greatest challenges of our sponsors. They help develop and introduce the latest computing applications—including mobile, help with software performance, and with enterprise integration and workflow solutions.

What are some examples of last year's projects?

- Researching tools for symbolic execution that would be applicable to software assurance
- Research and gather information on machine learning/neural networks needed to conduct an experiment in MATLAB on generated data; conduct the experiment and report results.
- The development of a cyclostationary signal processing toolbox in the Python language.
- Work with deep learning to build an object detection system to process satellite imagery
- Performing a deep analysis of an operational system to understand limitations and weaknesses
- Development of a tool (desktop application) which functions as an internet phone that provides accessible communication for the deaf and hard of hearing community
- Development and maintenance of a tool that discovers potential bugs and other vulnerabilities in a radar
- Working with VR technology to model scenarios in various applications including law enforcement

What does an ideal MITRE Computer Science/Software Engineering Intern or New Grad have:

- Demonstrated interest and/or experience in applied software engineering, human-centered computing, intelligent systems, platforms solutions, prototyping and experimentation
- Proficiency in one or more of the following--Java, Python, XML, HTML, C#, Objective C; Database design & development including SQL.
- Experience working with design recovery, software analysis, and/or reverse engineering tools
- Experience working with mobile environments and mobile computing
- Experience with a broad set of software development tools
- 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.