

Virginia Tech
Department of Computer Science
Postdoctoral researcher

Seek one or two postdoctoral researchers who are interested in the use of system engineering and data analytics to ensure system and software security. Current focus is on the use of machine learning methods for analyzing behaviors of systems and programs under attacks. Exploit reproduction, algorithm design, prototype implementation, and empirical validation are key characteristics of the individuals we hope to recruit. Recent related projects have explored call-level probabilistic program anomaly detection in Linux and static-program-analysis based malware detection. Emphasis on study of approaches effective and practical for real applications in security and the understanding of complex programs.

Funding for 1 year is available with possible extension. Background in system security is desirable. Person must be self-motivated and willing to take the initiative in research. Experience with reproducing exploits and attacks in Linux, program analysis tools, and machine learning tools would be desirable. Primary responsibility is to conduct research. Secondary responsibility is to help with research supervision of grad students and undergrad students.

Projects will be in collaboration with faculty at Penn State University. Strong communication skills are required.

Starting date: Immediately or until the position is filled

Duration: 1 year (renewal is subject to funding availability)

Location: Virginia Tech campus at Blacksburg, VA.

If interested, please contact Dr. Danfeng (Daphne) Yao (danfeng@vt.edu, <http://people.cs.vt.edu/~danfeng/>).