



POSITION: Information Security Specialist

JOB ID: 61987

MANAGER: Ed Talbot

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DEPARTMENT DESCRIPTION

The Computer & Network Security Research department is responsible for computer and cybersecurity operations and research at Sandia/California. Research areas include data protection and data movement within various network environments. Staff members also provide data protection services. Current research projects include peer-to-peer encryption, advanced wireless and network intrusion-detection systems, automated network countermeasures, network entity profiling, and network traffic analysis. In addition, our departmental expertise extends into the areas of wireless IP networks, network visualization, security analysis (systems and operations research), reverse engineering and malware analysis, and vulnerability analysis. Our department also manages the Center for Cyber Defenders Program and other cybereducation activities.

JOB DESCRIPTION

We seek an information security specialist to join our research-and-development team. Job responsibilities include (1) developing new computer and network security systems, including both hardware and software; (2) proposing and conducting research of new security technologies to benefit Sandia, the Department of Energy, and other government agencies; (3) publishing and presenting new findings to the information security community at large; and (4) mentoring student interns in short-term projects. The information security specialist will also be expected to support Sandia computer and network security operations by developing tools for operational use and by analyzing current threats to information security and systems.

QUALIFICATIONS

A PhD or MS in computer science, computer engineering, or another field with a strong relationship to computer and network security is required for this position. Candidates must also exhibit the following qualifications: (1) proficiency in computer & network security systems, software, and/or hardware; (2) C and/or C++ programming experience; (3) *NIX (Linux, BSD, etc.) operating system programming skills, including extensive development experience at the system/kernel level; (4) a working knowledge of the TCP/IP protocol suite; (5) demonstrated initiative and the ability to solve problems, prioritize work, and make decisions with little supervision; (6) excellent communication skills, including writing papers and presenting formal briefings; (7) the ability to work in a collaborative research environment; and (8) a willingness to travel.

Expertise in one or more of the following areas is desired: (1) Windows kernel programming experience; (2) experience with software reverse engineering and x86 assembly; (3) Python, PHP, PERL, Ruby, and Java programming experience; (4) computer hardware architecture knowledge; (5) working knowledge of BIOS, EFI, and other embedded firmware/microcode found in modern computing hardware; (6) experience in software and firmware development on microcontroller and programmable logic devices, such as FPGAs; (7) experience in computer and network security operations; and (8) VHDL or Verilog development experience.

Candidate must be able to obtain a U.S. Department of Energy security clearance for this position. To obtain a security clearance, U.S. citizenship is required.

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ABOUT SANDIA

Sandia provides employees with a comprehensive benefits package that includes medical, dental, vision, and a 401(k) with company-match. Our culture values work-life balance; we offer programs such as flexible work schedules with alternate Fridays off, on-site fitness facilities, and three weeks of vacation. In addition, Sandia/California enjoys close proximity to San Francisco, the Silicon Valley, first-tier universities, and diverse cultural and year-round recreational opportunities.

Sandia National Laboratories is an Equal Opportunity Employer M/F/D/V. If this position requires a security clearance granted by the U.S. Department of Energy (DOE), U.S. citizenship and employee eligibility for clearance processing will be required at the time of hire. If you hold dual citizenship and accept a job offer for a position that requires a DOE-granted security clearance, you may be asked by DOE to renounce your foreign citizenship and retain only your U.S. citizenship.