**Senior Software Engineer**

Microsemi Security Solutions provides highly differentiated security solutions integrating hardware, firmware, cryptography, and software to process and protect critical information, leveraging Microsemi IP and products in defense, security, automotive, and industrial applications.

We provide sophisticated software, firmware, and hardware security products that protect critical IP on systems and applications from both domestic and international nation-state threats. Given the widespread use of mission critical software in military systems and industry today, it is essential that these systems be protected against the threats of tampering and reverse engineering by unauthorized entities. Our team is comprised of exceptionally talented, dynamic, team-oriented, and highly creative engineers.

Job Summary

As a Senior Software Engineer on our engineering team, you will work closely with other development engineers to develop next generation software security products, as well as perform reverse engineering and threat assessments.

Tasks may include initiating the design, development, execution and implementation of security research projects, investigating the feasibility of applying scientific principles and concepts to potential inventions and products, planning and executing applied research. You will be expected to maintain substantial knowledge of state-of-the-art principles and theories, and may contribute to scientific literature and conferences.

To learn more about Microsemi Security Solutions, please visit [http://www.microsemi.com/product-](http://www.microsemi.com/product-directory/services/3606-security-center-of-excellence-scoe) [directory/services/3606-security-center-of-excellence-scoe](http://www.microsemi.com/product-directory/services/3606-security-center-of-excellence-scoe)

Essential Duties and Responsibilities

* Identify and design new software security products
* Implement software solutions for security systems (primarily in C/C++)
* Analyze systems for security vulnerabilities and perform threat assessments
* Perform reverse engineering/penetration testing on embedded and desktop systems
* Analyze requirements to ensure implementation feasibility
* Promote high quality standards and drive others to the same
* Mentor Software Engineers Benefit Summary

Microsemi provides substantial benefit packages that include competitive salaries, extensive health insurance options, generous 401(k) packages with matching funds, educational tuition reimbursement, and flexible vacation and leave alternatives for individuals, families, and military personnel.

Required Qualifications

* US Citizenship required. Applicant may be subject to a government security investigation and must meet eligibility requirements to access classified information and special project clearances.
* Bachelor’s Degree in Computer Engineering, Computer Science, Electrical Engineering, Math, or other related field with 2+ years of related experience.
* Experience with C/C++
* Experience developing low-level system software components and interfaces
* Experience developing software for microprocessors in embedded systems
* Familiar with software based reverse engineering tools and techniques
* Familiar with encryption protocols
* Experience with compilers, linkers, and assemblers
* Experience with software testing methodologies
* Excellent oral and written communication skills Preferred Qualifications
* Master’s Degree in Computer Engineering, Computer Science, Electrical Engineering, Math, or other related field with 7+ years of related experience.
* Experience performing reverse engineering or threat assessments
* Experience with assembly language (x86, ppc, ARM)
* Experience with any of Ada, Python, PERL, or Java programming languages
* Experience with software protection and/or anti-tampering techniques
* Experience analyzing system level architectures
* Experience implementing cryptographic algorithms
* Background in mathematics and abstract algebra
* Experience leading software development projects
* Familiar with typical Visual Studio, gcc, Multi/AdaMulti, Tornado, Workbench, and Eclipse project environments
* Experience with RTOSs
* Experience with compiler design and implementation
* Familiar with PE/COFF and ELF executable object formats.
* Familiar with VHDL