AUSTIN HEATH

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Willing to relocate

Clearance: Top Secret (TS/SCI) with CI Polygraph

EXPERIENCE

Senior Software Engineer June 2021 – Present

U.S. Army Cyber Command - Cyber Solutions Development *Fort Gordon, GA*

- Managed a team of 12 security researchers using tools like IDAPro, Ghidra, LLVM, and QEMU, to research, discover, and exploit vulnerabilities in embedded devices and Windows applications, enabling the organization to avoid costs procuring similar vendor solutions, resulting in a significant savings.
- Developed a shellcode library using C, Python, and CMake, enabling 20 developers to cross-compile ubiquitous shellcodes for Intel, ARM, MIPS, and PowerPC processor architectures, eliminating duplicate shellcodes across 9 exploit development projects.
- Instructed 5 operations teams on the effective use of exploit tools, increasing stakeholder interaction and influencing organizational policy to emphasize consistent stakeholder engagement.

Software Engineer February 2018 – May 2021

U.S. Army Cyber Command - Cyber Solutions Development *Fort Gordon, GA*

- Implemented 11 modules for a Python exploit framework, automating common operator tasks and reducing 50% of human interaction, increasing mission efficiency for 5 operations teams.
- Automated the organization's compilation, testing, release, and deployment process by integrating existing projects into GitLab CI, expediting tool development and release for 3 developer teams.
- Obfuscated web-based malware written in PHP using open source software and designed command, control, and configuration mechanisms using Python, enabling 3 operations teams across 2 uniformed services to maintain persistent access to web targets of interest.

PROJECTS

Extensible MapReduce Framework | https://github.com/one2blame/cs6210 | *C++, gRPC, Protobuf* April 2020

Designed an extensible, distributed system to MapReduce a large corpus of data, applying data sharding and load balancing to enhance performance.

Distributed File System | https://github.com/one2blame/cs6200 | *C++, gRPC, Protobuf* November 2019

Engineered a concurrent server capable of handling clients initiating asynchronous gRPC requests to upload and download files.

SDN Firewall | https://github.com/one2blame/cs6250 | *Python, Mininet, OpenFlow, POX* March 2021

Constructed an emulated network to test software-defined network firewall rules, programming real-time traffic inspection to enforce access controls.

EDUCATION

Georgia Institute of Technology Atlanta, GA

Master of Science, Computer Science (Specialization: Computing Systems), 4.0 GPA *December 2022*

Mississippi State University Starkville, MS

Bachelor of Science, Computer Engineering, 3.61 GPA *December 2017*

TECHNICAL SKILLS

Languages: Python, Lua, C/C++, Java, x86, x86_64, MIPS, ARM, PowerPC, TileGX
Libraries: gRPC, OpenMP/MPI, libvirt, libcurl, POX, Mininet, OpenFlow
Developer Tools: Git, GitLab CI, Atlassian Bamboo, Jupyter, Docker, CMake, QEMU, VirtualBox, Vagrant, GDB

CERTIFICATIONS

GIAC Reverse Engineering Malware (GREM)
Offensive Security Certified Professional (OSCP)
Certified Information Systems Security Professional (CISSP)
CompTIA Security+ (Sec+)
Certified Ethical Hacker (CEH)
Cisco Certified Network Associate (CCNA)