

LEADERSHIP & EXPERIENCE

Software Developer

May 2023 – June 2024

Lawrence Livermore National Laboratory

- Enumerated software from 8 Windows installer variants using python's VirtualBox API and pywin32
- Rectified a faulty Windows file system driver written in C++ and Rust
- Authored 7 code reviews and documentation for Surfactant, an SBOM tool for CyTRICS
- Researched .NET and Mach-O file formats to extract information for SBOM generation using LIEF

Backend and DevOps Developer

January 2024 – May 2024

University Capstone Team Project

- Deployed a Python Flask backend server on an AWS EC2 instance using Nginx
- Collected 2000+ events from 2 websites using Selenium and formatted the data into a database
- Configured the website domain using AWS tools such as CloudFront, Route 53, and S3
- Streamlined development by setting up an AWS CodePipeline from GitHub into an S3 bucket
- Devised a test suite using GitHub Actions consisting of 40 test cases for the backend REST API

Peer Teacher

August 2023 – May 2024

Texas A&M University

- Coached 40 students per class in Computer Architecture & Introduction to Operating Systems
- Produced 32 YouTube videos per semester and visually explained concepts covered in lecture
- Mentored 10 students during office hours and improved GDB skills for their C++ assignments

EDUCATION

Texas A&M University

August 2020 – May 2024

Bachelor of Science in Computer Science - Minor in Mathematics and Cybersecurity

GPA: 3.9 / 4.0

Computer & Network Security

- Executed ROP, buffer overflow, XSS, and SQL injection attacks
- Sharpened firewall skills using iptables and analyzed pcap files on Docker containers

Operating Systems

- Implemented a kernel's memory manager, scheduler, page table, and disk driver in C
- Built a simple networked client and server program in C with the TCP/IP stack

Reverse Engineering

- Studied malware using static and runtime analysis techniques with Ghidra and Wireshark
- Defeated anti-disassembly obfuscation and packed malware with Ollydbg
- Dissected Windows XP ransomware using Procmon

Introduction to Software Engineering

- Designed front-end user interfaces using Swing components in Java compatible with javadocs
- Adapted a user interface to React Native with Bootstrap components and improved accessibility
- Collaborated with potential users and enhance user experience

SKILLS

Programming: Python, C, C++, Java, x86, HTML, CSS, Javascript, PostgreSQL, Bash, Git

AWS Cloud Technologies: CodePipeline, EC2, RDS, CloudFront, Certificate Manager, Route 53, S3

Platforms: GitHub, Jira, Notion, Linux, Windows, React Native

Software: VS Code, Vim, Ghidra, VirtualBox, GDB, x64dbg, QEMU