Spencer Willett

givethanksalways.github.io

Email : spencer.willett15@gmail.com
Mobile : 858-319-9931

EXPERIENCE

Qualcomm — San Diego, CA
Software Engineer - Secure Systems Group — *May 2022 - Dec 2023*
- **C Library**: Built a library in C for use on Embedded Linux and Android. Involved concepts used for IPC.
- **Trusted Virtual Machine Development**: Integrated the C Library I built and updated the unit testing suite used to test the Trusted Virtual Machine
- **Test Driven Development**: Designed C++ code with a Test Driven Development approach using the Google Test framework
- **Static Analysis**: Fixed code security vulnerabilities for multiple repositories using an internal static analysis tool to audit code
- **Open Source**: Contributed actively to both open-source and proprietary code bases
- **Gerrit/GitHub**: Used both Gerrit and GitHub for software collaboration and code reviews

Intel — Chandler, AZ
Software Engineer - Graduate Student Intern — *Nov 2019 - Dec 2021*
- **12x Optimization**: Designed and implemented a 12x data processing optimization (using multithreaded code) to reduce the run time from 1 hour to under 5 minutes. (C#)
- **Group Presentation**: Gave a presentation to a group of software engineers on development tools and potential uses for the group: Docker, GitLab CI/CD
- **Docker**: Designed and implemented a replica database using Docker to use for development (previously the group has used the production database during testing phases)

Arizona State University — Tempe, AZ
Graduate Student Assistant - CSE 539 Applied Cryptography — *Aug 2021 - Dec 2021*
- **Course Design**: Proposed, designed, and implemented extra credit projects for the students: Time-Based One-Time Passwords (TOTP) in Python to match the Google Authenticator app on their phones.
- **Projects**: Developed correct solutions for the five major projects in the course: Steganography, cryptanalysis, MD5 hash collisions, Diffie-Hellman key exchange, and RSA key exchange (C#)

EDUCATION

Arizona State University — Tempe, AZ
Master of Science in Computer Science — *Aug. 2019 – Dec. 2021*

Brigham Young University — Provo, UT
Bachelor of Science in Physics — *2017*

RELEVANT COURSES

CSE 539: Applied Cryptography
CSE 543: Information Assurance and Security
CSE 545: Software Security
CSE 551: Foundations of Algorithms
CSE 565: Software Verification and Validation

CSE 571: Artificial Intelligence
CSE 572: Data Mining
CSE 575: Statistical Machine Learning
CSE 598: Accelerated Applied Security
CSE 598: Engineering Blockchain apps

PROJECTS

- **Virtual Computer**: I built a virtual computer following the Nand2Tetris course offered by the Hebrew University of Jerusalem

HONORS/AWARDS

- **Hackathon 2nd Place Team**: I was the lead software engineer on my team. I built a basic LeNet convolutional neural network using Keras in Python. Hosted by FOX at ASU.

PROGRAMMING SKILLS

- **Languages**: C++, C, C#, Python, Rust   **Technologies**: Linux, Android, Docker, .NET, Ghidra, GDB