Kevin Feng

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Skills

Languages: Java, C++, C, Javascript, Python, HTML/CSS
Technologies: NodeJS, Angular, Azure, Flask, Bash, Selenium, Jenkins, Linux, OpenSSL, NoSQL, MySQL

Experience

Blackberry   Toronto, ON
Software Development Intern - Certicom   Sept 2019 - Dec 2019

- Wrote a multi-threaded benchmarking framework for Java crypto and SSL libraries, detecting inefficiencies of up to 300%
- Modernized Blackberry's GCM algorithm by eliminating branch predictions, improving SSL run time by 18x and memory footprint by 90%
- Adapted a side-channel attack algorithm onto ECDSA implementations to detect possible leakages in nonce bits
- Devised a solution to reduce vulnerabilities by using constant time elliptic curve operations
- Optimized core AES block cipher to achieve a performance 15% faster than BouncyCastle

Passionfruit Inc.   Toronto, ON
Product Manager   May 2019 - Aug 2019

- Managed a team of 5 developers in creating a mobile hobby matching social media platform
- Provided consultation on the architecture of major features and wrote documentation for design requirements
- Set up and managed Passionfruit's JIRA, assigning 20+ tickets to facilitate team workflow

McAfee   Waterloo, ON
Software Engineer - Data Analytics   Jan 2019 - Apr 2019

- Redesigned and developed, from ground up, McAfee's analytics governance portal using SEAN stack
- Wrote a program that create Google Analytics queries for Databricks, supporting 2+ business units
- Released 3 quality of life patches for various internal web apps, improving load times by 20%
- Prototyped and demoed an explicit content filtering system in C++ for a division of 150+ employees

Versapay   Toronto, ON
QA Software Engineer   May 2018 - Aug 2018

- Detected 6+ critical bugs in Account Receivables Cloud by developing 3+ hours of regression tests
- Increased efficiency of the test suite by +50 mins/cycle by optimizing the run-time with batch processing
- Redesigned existing automation framework to centralize the governance of test targets and improve OOP compatibility
- Developed a program to generate and interpret different formats of CSV files to simulate invoice transactions

Projects

Innovation Trucking [Android, Python, NodeJS, Raspberry Pi]

- Built a prototype for a corporate scale security system for managing shipping containers
- Implemented dual factor authentication between an Android app, REST API and various security modules
- Placed top 5 out of 106 teams in DeltaHacks 2019

Chip 8 Emulator [Java]

- Wrote an emulator and disassembler for the SChip-8 instruction set with stepping and opcode debugging

WLP4 Compiler [C++]

- Created a compiler and assembler for a C++ like language that outputs into MIPS assembly
- Wrote functions that support standard IO features and dynamic memory allocation (new/delete)

Education

University of Waterloo   Expected Graduation: 2022
Bachelor of Computer Science - Minor in Combinatorics & Optimization (3A)
- President's Scholarship w. Distinction, Michael Egan Entrance Scholarship
- **Courses:** Object-oriented programming, Functional programming , Data Structures