

SHERMAN CHOW

 github.com/scc23

 scc23.github.io



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Technical Skills

Languages: C, C++, Java, Python, HTML/CSS, JavaScript, PHP, SQL, MATLAB

Tools: Git, Subversion, Green Hills MULTI, Microsoft Visual Studio, IntelliJ, Sublime Text, Vagrant, Valgrind

Technologies: Laravel, Vue.js, Bootstrap, JQuery

Operating Systems: Linux, Windows, Mac OS

- Solid knowledge of data structures, object-oriented programming, and agile development

Work Experience

Firmware Engineer Co-op

Jan–Aug 2018

Intel Corporation – Non-Volatile Memory Solutions Group (NSG) | Vancouver, BC

- Developed firmware in C for the next generation Optane solid state drives
- Created and improved unit tests for new features to ensure that corner cases were exercised
- Updated code and ported bug fixes from previous generation firmware to interface with new hardware
- Developed a software tool in Python with a GUI to generate a visualization of the Optane solid state drive data layout for engineers to debug firmware

Software Engineer Co-op

Jan–Aug 2017

Sierra Wireless Inc. | Richmond, BC

- Developed APIs in C++, analyzed defects, and fixed bugs for *AirPrime* modules with a team of 12 people
- Implemented new functionalities in our test application to test corner cases and validate new features
- Investigated new features using Microsoft Azure and mobile device management solutions to develop new capabilities for our products

Projects

Deny and Conquer Multiplayer Game

Feb–Apr 2019

- Collaborated with a team of 4 to develop a real-time multiplayer game in Java
- Implemented a multithreaded client-server based distributed system using TCP and UDP sockets
- Controlled concurrency by using a mutex to lock critical sections to avoid race conditions
- Coordinated actions by storing client messages in a priority queue and processing them by their timestamp
- Supported fault tolerance by replicating the game state and electing a new server through consensus

Music Synchronization Web Application

Oct–Nov 2018

- Collaborated with a team of 6 to develop a web application that allows users to create and join sessions to listen to synchronized music, and chat online
- Utilized the MVC architecture, LEMP stack, Laravel, Vue.js, and Bootstrap to create a dynamic website
- Interfaced with the Spotify Web API to add user authentication, fetch music data, implement a search bar to search for songs, and to create a music player

Shogi Japanese Chess Game

Sept–Dec 2016

- Collaborated with a team of 5 to develop variants of the Japanese chess game, Shogi, in Julia (programming language) with artificial intelligence and a GUI
- Developed multiple AI difficulties using the minimax search with alpha-beta pruning algorithm

Education

Bachelor of Science – Major in Computing Science

Sept 2013–Aug 2019

Simon Fraser University | Burnaby, BC

- Dean's Honour Roll, achieved a term GPA of 3.75 (Spring 2016)
- Studied one year abroad at *Zhejiang University* in Hangzhou, China (Sept 2014–June 2015)

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