Jonathan Chung

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Summary

- Experience in Java, including generic typing and lambda expressions
- Highly self motivated
- Passion for elegant software

Languages

- Java
- Javascript
- CSS
- C++
- HTML
- Access VBA

Tools

- Git
- Subversion
- Jenkins
- Gradle
- IntelliJ
- Linux

Frameworks

- LibGDX
- JUnit 5

Awards

- Dean's Honours List (2 terms)
- Queen's Venturer Award
- Excellence in Physics

Education

University of Waterloo

Candidate for BASc, Computer Engineering

Cumulative Average: 90.7%

Interests

- Recreational mathematics
- Scientific computing
- Minecraft

Experience

Software Developer   Toronto, ON
Universe Projects Inc.   May. – Aug. 2018
- Restructured and generified resource collection infrastructure for data-driven content generation with simple and efficient permission checking using Java
- Developed a system for synchronizing game objectives between the client and server while reducing the number of calls to the Google Cloud Datastore API
- Optimized the player messaging system for increased control and ease of use
- Built menus and restructured visual effects for configuration using LibGDX

Software Development Intern   Markham, ON
New York Theological Education Centre   Jul. – Aug. 2016, 2017
- Designed and implemented a library database system and user interface for storing and tracking items and users using Microsoft Access, VBA, and MySQL
- Developed an automatic report generator for searching and updating database records, identifying and reporting overdue books, and calculating fines
- Implemented a system to restrict user actions based on user permissions

Projects

BlockGame, chjon/BlockGame   Aug. – Sep. 2017
A block-based sandbox game using Java
- Utilized multithreading to update graphics in parallel with entity movement and object collision calculations, increasing system speed and responsiveness
- Implemented dynamic world generation and dynamic level rendering to reduce memory usage and frame draw time

DeltaT, chjon/DeltaT   Nov. – Dec. 2017
A reaction time game using C++ and an Onion Omega 2
- Designed and implemented hardware-interfacing infrastructure for a Linux system on a chip, allowing for all of the chip's GPIO pins to be used
- Created a system for scheduling code execution while minimizing input latency

Molecularize, chjon/Molecularize   Oct. – Dec. 2017
A chemical computing library in Java
- Developed a system to represent molecules as combinations of elements while preserving chemical and structural information
- Automated calculation of molar mass for chemical compounds to reduce the amount of time spent on manual calculation