

Jonathan Chan

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SKILLS

Languages: Python, JavaScript, TypeScript, Java, C#, C, C++, Bash, SQL,
Frameworks and Technologies: React, Knockout, Jest, JUnit, Git, HTML, CSS
Relevant Coursework: Data Structures and Algorithms, Software Construction, Introduction to Computer Systems, Applied Machine Learning

EXPERIENCE

Software Development Co-op | *TypeScript, React, Knockout, Jest, C#, Alida* Sep 2022 – Apr 2023
Vancouver, BC

- Develops new features and transitions existing features from legacy tech stack to a modern tech stack.
- Updates frontend and backend legacy code to support new features.
- Develop features with translatable text and localized input support for text direction & formatting, using software localization tools.
- Collaborates in bi-weekly scrum sprint and sprint planning.
- Communicates with team to keep production pipeline clear and to accomplish a weekly product push.

Lead Tutorial Teaching Assistant, CPSC 121: Models of Computation Jan 2022 – Aug 2022
University of British Columbia Vancouver, BC

- Facilitated lab and office hour discussions by actively listening to student responses and providing insight.
- Summarized and demonstrated proof techniques in tutorial with enthusiasm and clarity, yielding positive student feedback.

Volunteer, Molecular Modelling Subgroup | *Python, Bash* May 2021 – Aug 2022
Reid Research Group at UBC Vancouver, BC

- Created Python and Bash scripts to automate and scale previously manual processes on HPC servers.
- Replaced functions of traditionally used GUI applications, leading to greater research throughput.

PROJECTS

Appeal No More, Google SPS 2022 | *JavaScript, Java, Jakarta Servlet, HTML, CSS, SQL* Jun 2022 – Jul 2022

- Collaborated with a team of peers to do industry best practices such as code reviews to add incremental features.
- Created and configured SQL database and tables on Google Cloud.
- Implemented REST API in Java Servlet backend to query Google Cloud SQL database for complete CRUD operations.
- Utilized Google Cloud Storage libraries to enable image upload and retrieval.
- Created interactive user interface using HTML, JavaScript, and Google Maps API, that made post viewing and editing seamless.

Friendly Neighbor, BCS Hacks 2022, 5th | *JavaScript, React, HTML, CSS* Mar 2022

- Built interactive post making webapp using React.
- Set up a REST API using JSON Server to enable CRUD operations for posts.
- Created webforms that aid post creation, editing, and deletion, and collaborated changes using Git.

Conformer Counter | *Python* Nov 2021 – Dec 2021

- Developed a program that analyzes the geometry of molecules from coordinate files and classifies them.
- Identified an algorithmic approach to problem and implemented a graph search.
- Scaled the challenge of geometry analysis to thousands of molecules to validate the accuracy of a software package.

Linear Progression Training Program | *Java, JUnit, Swing* Oct 2021 – Nov 2021

- Developed a weight-training desktop application using OOP principles and implemented a GUI using Swing.
- Implemented all methods in a test-driven manner using JUnit tests.
- Enabled data persistence by implementing object conversion in every class to JSON.

EXTRACURRICULARS

12th/70, Maple CTF 2022 | *Python, C, GDB, pwntools, Ghidra* Jan 2022

- Applied understanding of stack memory and function calls to exploit program vulnerabilities for flags.
- Learned to read and follow disassembled C code to determine vulnerabilities in program binaries.

EDUCATION

Bachelor of Computer Science Sep 2021 – May 2024
University of British Columbia | GPA: 90.4% Vancouver, BC

BSc. Combined Biochemistry and Chemistry Sep 2015 – May 2020
University of British Columbia Vancouver, BC