Jonathan Chan

chan_jon@outlook.com ❖ (778) 953-6781 ❖ linkedin.com/in/chan-jon ❖ chanjonathan.github.io

SKILLS

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

EXPERIENCE

Software Development Co-op Sep 2022 – Apr 2023
Alida *Vancouver, BC*

- Develops and transitions legacy web app to a modern frontend tech stack consisting of React, TypeScript, and Material UI.
- Updates legacy code in .NET backend to support new features.
- Collaborates with team to accomplish product pushes in bi-weekly scrum sprints and to ensure production pipeline is clear.

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 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, HTML, CSS, SQL* Jun 2022 – Jul 2022

- Collaborated closely with a team of peers using Git to approve and merge the development of 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.
- Wrote JUnit tests and implemented functions in a test-driven manner.
- Implemented data persistence in JSON format.

Computational Chemistry Tools | *Python* Nov 2021 – Dec 2021

- Developed CLI applications that automate the process of file conversion.
- Implemented file parsing and read/write exception handling.

EXTRACURRICULARS

Maple CTF 2022, 12th/70| *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 dissembled 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*