Derek Chu

Year 2, Combined Major in Computer Science and Mathematics
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Relevant Links: LinkedIn | GitHub
Languages: Java, C, C++, Python, JavaScript, R, HTML, CSS, Racket
Technologies: Git, MATLAB, Visual Studio Code, IntelliJ, GDB, JUnit, tidyverse, ggplot2, dplyr

WORK EXPERIENCE

PAI Health   **Vancouver, BC**
QA Tester – Contract-Based   *Dec. 2021 – May 2022*
- Conducted field tests to verify beta and production code using Apple TestFlight.
- Using Jira, identified and logged issues involving the collection, measure, and analytics of fitness data.
- Communication with developer teams over Slack and daily stand-ups hosted on Zoom.

CoCo Fresh Tea & Juice   **Burnaby, BC**
Shift Leader   *Mar. 2021 – Apr. 2022*
- Excelled in fast-paced environment by adeptly handling diverse situations with patrons.
- Skillfully directed new employees to improve team cohesion and productivity.

TECHNICAL PROJECTS

Calculator | GitHub Demo | (JavaScript, HTML, CSS, Git)   **August 2023**
- Leveraged DOM manipulation and event handling to enhance web interactivity.
- Extended functionality using keyboard listeners enable typed input.
- Utilized modular code organization to encourage maintainability and ease of testing/debugging.

Wishlist Management System | GitHub | (Java, Swing, JUnit, JSON, Git)   **January 2023**
- Developed GUI using Swing, allowing user to create and manage a wish list.
- Utilized data-driven testing with JUnit framework to create unit tests and ensure thorough coverage.
- Implemented data persistence using a third-party JSON package.
- Adopted OOP design principles to ensure organized and maintainable code.
- Evaluated UML class diagram to apply design patterns to reduce coupling and increase cohesion.

Heart Disease Pain Classifier | GitHub | (R, JupyterLab)   **December 2022**
- Implemented a KNN algorithm to classify chest pain using cross-validation to choose neighbours.
- Employed libraries like tidymodels and ggplot2 to read, clean and wrangle data, and visualize analysis.

LEADERSHIP EXPERIENCE

Taiwanese Canadian Cultural Society   **Vancouver, BC**
Volunteer   *Jan. 2020 – Present*
- Monitored and assisted groups of 20+ children in cultural activities to facilitate a safe environment.
- Collaboratively formed daily schedules within a dynamic team environment.

ICPC Regionals 2023   **Vancouver, BC**
Logistics Volunteer   *Feb. 2023*
- Registered and organized competitors and addressed questions during competition.

EDUCATION

The University of British Columbia   **Vancouver, BC**
B.Sc., Computer Science and Mathematics   *Sep. 2022 – Nov. 2026*
- Science Scholar Recipient *(*cumulative average 90%+ with full course load).
- Coursework: Numerical Computation, Software Design, Computer Systems, Algorithms and Data Structures, Linear Algebra, Advanced Calculus, Discrete Math, Mathematical Proof, Statistics.