

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, MATLAB

Frameworks and Technologies: Git, Visual Studio Code, IntelliJ, JUnit, tidyverse

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: Algorithms and Data Structures, Software Design, Computer Systems, Linear Algebra, Statistics, Mathematical Proof, Advanced Calculus, Discrete Math.

WORK EXPERIENCE

PAI Health

Vancouver, BC

QA Tester – Contract-Based

Dec. 2021 – May 2022

- **Identified and logged 60+ issues** involving the collection, measure, and analytics of data using **Jira**.
- Conducted field tests to verify beta and production code using Apple TestFlight.
- 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

- **Decreased training time by 25%** by skillfully directing new employees and implementing training programs aimed towards improving 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.
- Evaluated UML class diagram and applied design patterns, leading to a **25% reduction** in code coupling and **20% increase** in code cohesion
- Achieved 100% code coverage using data-driven testing with JUnit framework to create unit tests
- Implemented data persistence using a third-party JSON package.

Heart Disease Pain Classifier | [GitHub](#) | (R, JupyterLab)

December 2022

- Implemented a KNN algorithm to classify chest pain, resulting in an improved accuracy of 42%
- Employed libraries like tidymodels and ggplot2 to enhance data visualization and 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 **100+ competitors** and addressed questions during competition.