

Mercury Mcindoe

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EDUCATION

University of British Columbia

Vancouver, BC

Bachelor of Applied Science in Computer Engineering, CGPA : 4.33/4.33, 90.1%

Sept. 2021 – May 2025

- Minor in Honours Mathematics
- Dean's Honour List/Roll: 2021, 2022, 2023
- Martin Sikes Memorial Scholarship in Electrical and Computer Engineering, 2023

EXPERIENCE

Software Developer

Jan. 2024 – Present

UBC Uncrewed Aircraft Systems

Vancouver, BC

- Developed a wrapper API for **MissionPlannerScripts** using **Python** to automate drone control through scripts.
- Performed unit and integration tests with **Pytest** and **Poetry**, and conducted 10+ flight tests to ensure firmware-software connectivity.
- Containerized server environments through **Docker**, enhancing consistency across devices.

Mathematics Undergraduate Teaching Assistant

Sept. 2023 – Present

University of British Columbia, Department of Mathematics

Vancouver, BC

- Led weekly Calculus I and Calculus II discussions to enhance student comprehension.
- Conducted weekly 3-hour office hours, providing personalized assistance to address individual student needs.
- Consistently maintained a **90%** average favorable rating, reflecting high student satisfaction and effective teaching support.

PROJECTS

LectureLink | *Node.js, Firebase, MongoDB* |

NwHacks 2024, Jan. 2024

- Developed the backend system using **Node.js**, **Firebase**, and **MongoDB** to connect students based on their course enrollments, enabling them to find and collaborate with classmates easily.
- Developed server-side logic for course matching with **email.js**, enabling faster user matching.
- Implemented secure user sign-in and session management with **Firebase** authentication services.

Multi-Client Twitter Service | *Java, Object Oriented Programming*

Nov. 2022 - Dec. 2022

- Built a **multi-threaded Java server** for real-time Twitter data processing, achieving high concurrency and reduced response times with a **Java**-based caching solution.
- Enhanced security with salting, hashing, and **AES** encryption.
- Maintained service reliability through rigorous regression testing, ensuring system integrity and performance.

My Game Manager | *React, TypeScript, PHP, Oracle* |

Oct. 2023 - Dec. 2023

- Designed a user-centric frontend with **React** and **TypeScript** for database interaction.
- Created a graphical SQL query platform with **PHP** and **Oracle** for non-coders.
- Innovated click-and-toggle functionality for database operations using **dynamic SQL queries**.

OS/161 Operating System Development | *C Programming, Operating Systems* |

Sept. 2023 - Dec. 2023

- Implemented synchronization primitives (locks) in **C** to ensure thread safety.
- Extended kernel with system calls and a robust file system, enhancing **process control** and **file management**.
- Used **GDB** for debugging, boosting performance and stability.

TECHNICAL SKILLS

Languages: Java | Python | C | C++ | SQL | JavaScript | TypeScript | php | HTML/CSS | ARM assembly

Frameworks: React.js | Express.js | Node.js | PyTorch

Others: MongoDB | Flask | Git | Unix/Linux | Firebase | HTTP | Jira | RESTful API | pandas

Related CourseWork: Software Construction | Algorithms and Data Structures | Relational Databases | Object-Oriented Programming | Computer Communications | Operating Systems | Computing Systems | Micro Computer Systems