

Joshua Chiu

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Profile and Objective

I am an engineering master student specializing in cybersecurity, in particular designing privacy-enhancing technologies. With a strong statistical background, my career aspirations lies in investigating privacy concerns and developing privacy preserving technology. I am driven to apply my skills in data analysis, cloud computing, and agile methodologies to create and deliver innovative, high-impact solutions.

Education

University of British Columbia – Master of Applied Science in Electrical and Computer Engineering Dec 2025

- Funded scholar studying cybersecurity with focus on efficient cryptography, networking security and differential privacy
- Thesis on Privacy Leakage of Searchable symmetric encryption advised by Simon Oya

University of British Columbia – Bachelor of Applied Science in Computer Engineering May 2024

- Exchange Study at Girton College, University of Cambridge
- Only student in cohort to be selected for an undergraduate thesis
- Thesis topic on optical flow resiliency advised by Karthik Pattabiraman

Experience

Lab Intern, Dependable Systems Lab @ UBC – Vancouver, BC Septemeber 2023 – June 2024

- Selected as an undergraduate intern with research on security and resiliency of vision positioning with Pritam Dash
- Created a testing pipeline for scaling optical flow tests across multiple machines on ROS/Gazebo simulator

Programmer - Client Facing Lead, Nine Nine Digital – Wan Chai, Hong Kong May 2023 – Present

- Acted as tech lead in delegating tasks and maintain clear communication with business team and client tech team
- Implemented Google Analytics (GA4) and pixel tracking on client site for a clear understanding of customer behaviour
- Applied SEO Strategies to client site and made promotional material to optimize visibility and algorithmic performance

Teaching Assistant, University of British Columbia – Vancouver, BC September 2023 – Present

- Course: CPEN 221 Software Construction, CPEN 442 Cybersecurity
- Hold office hours and labs, develop assignments, proctor and grading

Digital and IT Intern, Cathay Pacific – Cathay City, Hong Kong June 2022 – August 2022

- Supported the Information Operations Management Team to develop a new auto-discovery system for Configurable Items for an increase in accuracy of accounting in the CMDB
- Supported the development of the 2022 Cathay Hackathon website and portal using scrum and agile

Lifeguard/Instructor, UBC Aquatic Centre – Vancouver, BC May 2018 – September 2021

- Led swim classes and supported pool operations
- Handled pool administration and front of house operations

Skills

Language Proficiencies: Python, C/C++, Java, HTML/CSS/JS, Node.js, Git, Bash, SQL

Libraries, Frameworks, and Tools Proficiencies: Gradle, JUnit, Django, Selenium, WebKit, Continuous Integration, Docker, WebAssembly, Atlassian Suite (Jira + Confluence), Microsoft Suite (Word, Excel, PPT, Access) Linux (Ubuntu, Fedora)

Licenses: Restricted Radio Operator (ROC-A), Drone Operator License (CA RPAS Basic and HKCAD Remote Pilot), Private Pilot (PPL)

Spoken Languages: English, French, Mandarin, Cantonese

Notable Coursework

CPEN 534 Trade-offs in Designing Computer Systems: Trade-offs in various contexts: OS, DB, and, cloud computing, etc.

CPEN400P Program Analysis for Reliability and Security: Static and dynamic analysis of software systems, etc.

EECE 571Z Convex Optimization: Recognizing and solving convex optimization

Extracurriculars

Private Pilot, Pacific Professional Flight Centre/Douglas College – Delta, BC November 2021 – Present

Aircraft Design Team Member, UBC Uncrewed Aircraft Systems – Vancouver, BC September 2020 – September 2021

Developer, Techzonomy Studios – Vancouver, BC March 2020 – April 2021

Right Defender, Vancouver Minor Hockey Association – Vancouver, BC September 2012 – March 2020