

James Cai

1B Math/Business at the University of Waterloo

✉ j93cai@uwaterloo.ca 🌐 github.com/jamescai0 🔗 linkedin.com/in/jamescai93 🌐 jamescai0.github.io/ ☎ +1 647-504-8797

Skills:

Programming

Python, R, Bash, C, HTML/CSS, Lisp/Scheme

Server/Database

Flask, Node.js, Oracle SQL, SQLAlchemy, Maria-DB, AJAX

Operating Systems

Windows, Linux/Unix (Ubuntu)

Tools

Git, Microsoft Office

Languages

English, French, Mandarin

Awards:

Commanding Officer's

Leadership Award – 2019

Awarded for initiative and creativity as a Cyber-Security Instructor

Scholar's Award – 2019

Attained Erindale's top mark in French

Royal Conservatory of Music

Level 8 with Honours

Saxophone and Theory

Interests:

Networking, Machine Learning, Trading Simulators, Powerlifting, and Stand-up Comedy

Summary:

- Math/Business student at the University of Waterloo with strong academics and professional/personal project experience
- Strong knowledge of databases and APIs using development tools such as Python, Bash, SQL, Node.js and Maria-DB, with 2 years of experience
- Known as a catalyst, team player and structured individual, striving consistently to exceed expectations

Experiences:

2019-2020

Cyber-Security Instructor – Cadets Canada

- Employed shell programming using **Bash** as part of the practical component of the course in **networking** and **system monitoring**
- Created execution programs in **C** and **Python** to provide as examples of code, to supplement the learning done
- Taught core cyber security concepts: **Sysinternals**, Init systems Command line manipulation, **TCP-IP Stack**, and **SSH** to **400 youth** across Canada

2017-2020

Founding Member/Executive, High School Math Club

- Head of promotion and recruitment, raised attendance by **100%**
- Created media to present the club accolades and achievements
- Achieved **10th percentile** consistently in competition

Projects:

2020-Present

Splitstub (Receipt Interpreter)

- Employed **Tesseract** computer vision and **deep reinforcement learning** to mesh the characters given on a receipt via **Node.js**
- Calculates the cost if split amongst several users taking in other parameters such as individual purchases and cost exclusions

2021

FlexiQueue (Restaurant web app - NWHacks)

- Created the webpage using **HTML/CSS** and **JavaScript**, using **jQuery** and **JSON** through **AJAX** to transfer information to the backend
- Used **Python**, **Flask** API, and **SQLAlchemy** to store object-oriented query information such as accounts and reservations in **Maria-DB**

2021

Personal Website

- Created the webpage using **HTML/CSS** to detail more about myself, my projects, and my experiences

Education:

2020-2025

Math and Business Administration, Honours Co-op

University of Waterloo – 94% Average

2016-2020

International Baccalaureate – Diploma Programme

STEM Pathway - 93% Average