# William Wu

## **EDUCATION**

## University of Waterloo

Waterloo, ON

Honours Bachelor of Computer Science, Co-op

Sept 2024 - May 2029

- Cumulative 4.0 GPA (94.0%)
- Recipient of the Mathematics National Scholarship, one of 10 awarded in the Faculty of Mathematics for demonstrated excellence in academics and extracurricular activities

#### TECHNICAL SKILLS

Languages: Python, Java, C, C++, HTML, JavaScript, TypeScript, CSS, R, SQL, Bash, Racket

Frameworks: Flask, FastAPI, React, NextJS, TailwindCSS, Streamlit

Tools and Technologies: Git, GitHub, AWS, Linux, PostgreSQL, Pandas, Matplotlib, OpenAI, NodeJS, VS Code

# PROJECTS

#### Layoff Evaders | VR Fitness Game Companion App | Python, Pandas, Streamlit, Cohere API

Jan 2025

- Won 2nd place overall out of 600+ competitors and 130+ submitted projects in DeltaHacks XI
- Developed a fitness-oriented VR game with a real-time companion dashboard displaying session statistics
- Leveraged Streamlit and Cohere's LLM to implement a chatbot with interactive chart generation capabilities

# AdmissEd | Admission Statistics Web App | AWS, React, Python, FastAPI, Pandas, Matplotlib Dec 2024

- Deployed admissed.com 2 by employing AWS technologies such as S3, CloudFront, Route 53, ECR and Lambda
- Built a full-stack web app for admission statistics analysis, featuring a responsive UI built with React and CSS
- Utilized Python's FastAPI web framework to form a RESTful API supporting data parsing and manipulation
- Harnessed the Pandas and Matplotlib data analysis and visualization libraries to generate comprehensive reports

## LemonAid | AI Pantry Monitor | Python, Flask, OpenAI API, JSON

Aug 2024

- Developed an AI-powered pantry web app emphasizing optimal user efficiency for Ignition Hacks 2024
- Implemented grocery photo scanning and expiration date processing using OpenAI's vision capabilities
- Employed GPT-4 text generation and DALL-E to create step-by-step recipes from given pantry ingredients

# Eyedentify | Facial Recognition Attendance Tracker | Python, Flask, Face Recognition, JSON

Mar 2023

- Won 2nd place overall and the best web app category out of 350+ competitors in YRHacks 2023
- Engineered an intuitive web app interface to optimize class attendance for teachers by using facial recognition
- Built a Flask backend application which utilized the Python face-recognition library to determine face similarities

## Extracurriculars & Achievements

# DMOJ Modern Online Judge

May 2021 – Present

- Moderated the site as staff in training, performing integrity checks on user in-contest submissions
- Applied advanced algorithms and data-structures to curate 9 contests, attracting a total of 1500+ live participants
- Authored 12 competitive programming problems with a combined total of 13000+ solve attempts by users
- Tested data strength and provided feedback for rated programming contests to prevent unintended solutions

#### 8 Globemaster Royal Canadian Air Cadet Squadron

Sept 2018 - June 2024

- Commanded a squadron of 200+ cadets during the 2024 annual parade as the 2nd highest ranking cadet
- Organized the 2023 fall fundraiser, tagging, which involved 100+ cadets in 15+ locations over 4 days
- Oversaw the 5th year senior cadet leaders in their duties and coordinated with adult staff to conduct evaluations
- Planned a shelter building competition during a field training exercise, engaging and teaching 80+ cadets

#### Canadian Computing Competition, Senior Division | Honor Roll Group 2

Feb 2022

• Applied critical thinking, algorithmic, and data-structure skills to place at rank 75 over 3262 senior competitors