

Alex Li

Software Developer

@ a336li@uwaterloo.ca  [1liale.github.io/PersonalWebsite](https://github.com/1liale/PersonalWebsite)  www.linkedin.com/in/alexli2002  905-616-1816

Objective

Waterloo CS student with a genuine interest in developing elegant software to solve real-world problems seeking a position as a Software Developer.

Summary of Qualifications

Programming Languages: Java (2 years) / Python (9 months) / C++, C# (7 months) / JavaScript (4 months)

Skills: Git / Linux / Firebase (Cloud Firestore, RTDB, Functions) / REST / Open Source / IoT / RDBMS (MySQL)

Education

Bachelor of Computer Science - University of Waterloo, Waterloo, ON

Sept 2020 - May 2025

- President's Scholarship of Distinction | Term Distinction

Projects

Personal Website

December 2020 - January 2021

- Designed a responsive personal website with clear, appealing visuals using **HTML**, **CSS**, and **Javascript**.
- Implemented a **REST API** to handle requests to **Cloud Firestore** and **Firebase RTDB** using **Nodejs** and **Express**.
- Combined Google's **Custom Search JSON API** with a custom web scraper to gather inspirational quotes by topic or search relevance, providing a more personalized experience for the user.

Genetic Algorithm ML

January 2021

- Modelled a **Feed Forward Neural Network** in Python to teach a block to jump over incoming obstacles.
- Applied the **Genetic Algorithm**, selecting the phenotypes from the last surviving block in each generation to modify the weights and biases of the network (AI learned in 5 generations and no training set was required).

Experiences

Computer Studies TA

January 2020 - June 2020

- Engaged in **active learning** through teaching, assisting the course instructor in delivering course content to the class and explaining concepts tailored to individual learning styles (verbal description, diagrams, analogy).
- Assisted the instructor in designing a new course module on Game Design in Python and assessed the level of difficulty to determine if it would be suitable for grade 11 students.

YMCA Lifeguard and Instructor

August 2018 - March 2020

- Delivered **500+ hours** of swimming lessons to students of all ages.
- Demonstrated experience in handling public relations with patrons and staff, resolved issues and complaints through taking proactive measures like active listening and giving clear, purposeful explanations.