

Alex Li

Software Engineer

a336li@uwaterloo.ca | linkedin.com/in/alexli2002 | github.com/1liale | 1liale.github.io/PersonalWebsite

Skills

Languages: C/ C++, TS/ JS, Python, Java, Kotlin, C#, SQL, Bash

Technologies: React, React Native, Next, Redux, Angular, Firebase, Flask, Node, Express, GraphQL, MySQL, Git

Experience

Snapcommerce / Super, SWE Intern

Sep 2022 – Dec 2022 | Toronto

- Deployed and maintained an e-commerce platform using **Next.js**, demonstrating strong ownership of work and ability to deliver features end-to-end in a fast-paced environment.
- Developed **REST** and **GraphQL** services to interact with the BigCommerce APIs, retrieving and sending data.
- Implemented **E2E** and **Unit** tests using tools such as **WebdriverIO** and **Jest** to ensure the quality of features.

blueRover, Product Developer

Jan 2022 – Apr 2022 | Cambridge

- Fully refactored an outdated **Nodejs** and **React** web application, optimizing the codebase to use functional components with **React Hooks**, **Redux** global state management, and improved error handling.
- Managed a **MySQL** relational database, accessing, storing, and organizing various data using SQL queries.

SaFuture, Software Developer

May 2021 - Aug 2021 | Oakville

- Implemented responsive web application pages tailored to the client's needs using the **Angular** web framework.
- Established backend business logic using **.NET** and **C#** to handle requests to and from an Oracle database.

Projects

BitboardChess ([Github](#))

Dec 2022 - Feb 2023

- Designed a chess engine in **C++** with Minimax search, implementing the MVC and Observer design patterns.
- Applied bitboard and move encoding techniques to speed up move generation and improve search depth.

NameThatFish ([Github](#), [Demo](#))

Jan 2022 - May 2022

- Lead a team to build a cross-platform mobile application to classify fish species by visual features using **React Native**, **Flask** and **Tensorflow**; made significant contributions to both the classification model and UI.
- Applied custom data augmentation with **Keras** for better performance and generalization of the model.
- Achieved above 93% test accuracy on over 20 classes with transfer learning on the **EfficientNetv2** CNN model.

BlackJack-Trainer ([Github](#))

Dec 2020 - Jan 2021

- Developed a Java application that trains players to become better at the card game BlackJack.
- Featured key **OOP** concepts and an AI dealer capable of card counting and playing by "Basic Strategy".

Education

Bachelor of Computer Science

University of Waterloo | Waterloo

President's Scholarship of Distinction

Sep 2020 - Apr 2025

Courses: Data Structures & Algorithms, Operating System, User Interfaces, Object-Oriented Programming