Andy Li

📱 (416) 993-7788 | ✉ a326li@uwaterloo.ca | 🏠 andylican.github.io | 🐙 andylican | 💼 andylican

Education

University of Waterloo   *September 2020 - December 2024*

BACHELOR OF COMPUTER SCIENCE

- 3.99 Cumulative GPA (94%)
- Rene Descartes National Scholarship - $25,000
- Contest Honor Roll (top 5%): Canadian Computing Competition Senior, Euclid, AMC 12 (AIME qualifier)

Skills

Languages: Java, Golang, C++, C, JavaScript, HTML, CSS
Frameworks: React, Angular, Node, PostgreSQL, MySQL, MongoDB (Atlas), Bootstrap 4, jQuery
Tools: Git CLI, GitHub, GitLab, Perforce, Docker, SonarQube, Linux (Ubuntu, Mint, CentOS), Bash, Jira, Asana, VMware, Postman

Work Experience

Index Exchange (Current Software Engineering Intern)   *September 2022 - December 2022*

- Increased code coverage of key repositories to **100%** by writing extensive unit tests in **Golang**.
- Successfully deployed changes to **production** by recreating and monitoring **Kubernetes** clusters in **ArgoCD**.
- Maintained repository health by modifying **SonarQube** configurations and debugging **CI/CD pipeline** errors.

OpenText   *January 2022 - April 2022*

SOFTWARE DEVELOPER - TEAMSITE

- Reduced size of device data files by **50%** through implementing efficient device emulation filters in the **AppWorks** project.
- Increased customer satisfaction with the **OpenText TeamSite product** by implementing significant UI changes through the **Customer Improvements** project, using **Angular**, **jQuery**, and **JSP**.
- Improved code quality of **5 different TeamSite versions**, each containing **millions of files**, through performing routine bug fixes and testing software changes on each version with **VMware virtual machines**.
- Upgraded TeamSite to JDK 17 **within 2 weeks** by researching and testing **JDK 17** compatibility with **over 100 different services**.

Mentum Group Inc.   *May 2021 - August 2021*

SOFTWARE ENGINEER

- Increased pickup and delivery efficiency for **over 100 restaurants** by developing a restaurant location picker app using **React**, revamping its user interface, and implementing an interactive map using the **Apple MapKit Javascript plugin.**
- Implemented backend services used by **hundreds of thousands of customers** for food delivery services like Uber and SkipTheDishes, by creating **gRPC protobuf API endpoints** and transforming external data to user-friendly formats using **Golang**.
- Generated additional revenue for restaurants by using **React, React Hooks, and Redux** to create a delivery feature on the Mentum site that can integrate with restaurant menus and calculate tips, taxes, and delivery fees.
- Maintained **100%** customer data accuracy by managing and updating a **1 million line** database using **PostgreSQL CLI**.

Projects

Build-A-Fleet

APP: BUILDAFLEET.HEROKUAPP.COM, GITHUB: GITHUB.COM/ANDYLICAN/BUILD-A-FLEET

- Created a Star Wars themed web application using **Node** and **Express** that provides users a visual catalog of starships and allows them to plan their fleet through simulated purchasing.
- Fetched data with over 100 entries from the **Star Wars API** using **Fetch API** and stored data using **MongoDB**.
- Incorporated **EJS** dynamic templating to display affordable starships (MongoDB query) along with owned ships.
- Designed and built webpages using **HTML**, **CSS**, and **Bootstrap 4**, and deployed the app using **Heroku**.

EcoSim

GITHUB.COM/ANDYLICAN/ECOSYSTEM-SIMULATOR

- Simulated a self-sustaining ecosystem with **thousands of plants, sheep, and wolves** using **Java**.
- Incorporated many elements of **object-oriented design** to allow creatures to interact with each other and their surroundings.
- Optimized hunting, breeding, and feeding behaviour of inhabitants using **graph algorithms** like **Breadth-First Search**.