

Andy Li

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andyli.app

SKILLS

Languages C++, Java, Python, Javascript, Typescript, Dart

Frameworks Node, Express, React, React Native, Angular, Flutter

DataStores MySQL, Postgres, Sequelize, MongoDB, Redis

Cloud & DevOps Yarn, NPM, Heroku, Docker, Bash, Git, Linux

WORK EXPERIENCE

Software Engineering Intern

KitchenMate

Toronto, ON

09/2021 – 12/2021

- Added payment processing authentication on **Adyen** terminal **POS** using display events and webhook notifications, speeding up the platform by **80%**
- Implemented card fail event in the kisok emulator using **React** and **Typescript** to test various failure points such as insufficient funds or denied pre-auth
- Constructed new **UI/UX** for registering various culinary procedure recipes using **RestAPIs**, allowing for automated meal preparation
- Created custom assembly instructions on the operations web app using **Angular** and **Node** reducing production packaging speeds by **50%**

Software Engineering Intern

Watorace

Remote

01/2021 – 04/2021

- Developed a lap timer using **C++** to record timings for laps, corners, and straightaways in the **ROS2** simulation framework
- Automated a path-optimizer using **Python** to determine the fastest route after a series of laps
- Built a new racing-line using **MATLAB** with the path-optimizer, reducing lap times by **20%**
- Monitored the status of virtual machines and licensing servers using **Netdata** set up with **SSH** protocol

PROJECTS

Residence Reviewer

MongoDB, Express, React, Node

01/2021 – 04/2021

- Created a fullstack web app in **React** to help users find residences in a selected area based on reviews and insights
- Used **MongoDB Realm** to convert the **Node** and **Express** backend to **serverless** and host the app in the **Realm Cloud**

Reconstruct App

Flutter

Hack the North 2021

- Built the mobile **UI/UX** to send damage reports and images to a server for analysis using **RestAPIs** and **Firebase**
- Devised a ranking algorithm from budget, cost, damage, population density to triage broken roads

Angry Flappy Birds

Java

01/2021 – 04/2021

- Created a fully functionable game in **Java** using object-oriented programming principles and design
- Implemented motion and projectile physics for the user to dodge obstacles and traps

AWARDS

4th Place and Rising Star Award in Indy Autonomous Challenge

03/2021

- Built software in **C++** and **Python** to control an autonomous vehicle
- Raced against 18 university teams from 11 countries in a series of 4 virtual events in the **ANSYS VRXperience** simulator

EDUCATION

Computer Engineering, 2A

University of Waterloo

09/2020 – 05/2025

- Cumulative GPA of 3.30