Larris Xie

larris.xie@gmail.com · 437-974-6166 · larris.me · linkedin.com/in/larrisxie

Skills

Languages:	C++, Python, JavaScript, TypeScript, Java, SQL, C#, C, R, Dart
Frameworks:	React, NextJS, ExpressJS, NodeJS, Flutter
Tools:	Git, Vercel, Figma, Postman, Jupyter, GCP, Unity, MongoDB, Firebase, SQLite

Experience

Student Researcher Aug 2022 - Feb 2023
Lumiere Education

- Analyzed a financial transaction dataset using Python and trained a machine learning model to classify fraudulent financial organizations with a **99% accuracy** and a **0.001% false positive rate**
- Published a research paper in the **Journal of High School Science** under the mentorship of professor Maria Konte

Autonomous Driving Research Fellow Oct 2022 - Jan 2023
Inspirit AI

- Developed **object detection models for self-driving cars**, with multiple approaches including neural networks, CNNs, transfer models, and YOLO
- Presented a **comparative analysis** of different model architectures, evaluating trade-offs between speed and accuracy in the context of autonomous driving

Virtual Software Engineer Sep 2023 - Nov 2023
J.P. Morgan Virtual Program

- Fulfilled engineering tickets to create a **quantitative analytics platform** that helps traders better identify under/over-valued stocks
- Launched a data dashboard created with TypeScript and Python to visualize JPMorgan Chase's Perspective library, **saving trader productivity hours**

Projects

The Fastest Root *React, NextJS, TypeScript, ExpressJS, NodeJS*

- Engineered a **full-stack web app** that calculates the cheapest and fastest grocery shopping route given an ingredient list
- Automated the price retrieval process with **web scraping** and integrated the **Google Maps API** to display the optimal route

NutriScan *Swift, Python*

- Developed an iOS app that tracks daily nutritional intake through **computer vision**
- Created a Python script that classifies the food in a photo using **image recognition** hosted by Google Cloud and displays the total nutritional facts to the user

Twist Twist Revolution *Python, OpenCV*

- Built a **computer vision based rhythm game** using Pygame and OpenCV
- Produced a real-time **hand gesture tracker** using OpenCV and MediaPipe that acts as the inputs for the game

Frood *React, Redux, ExpressJS, NodeJS, MongoDB*

- Developed a **MERN stack web app** that allows people to find recipes based on the ingredients they currently have in their kitchen
- Implemented a **REST API with NodeJS** to handle user authentication with JWT, user input of ingredients, and querying through MongoDB to filter the recipes

Education

University of Waterloo Sep 2024 - May 2029
Bachelor's of Computer Science