

# Louie Yin

## University of Waterloo Software Engineering

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### TECHNICAL SKILLS

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**Languages:** JavaScript/TypeScript, Python, C/C++, HTML/CSS

**Technologies:** Git, NodeJS, React, Windows, Linux/Unix, Flask, Prism, Websocket, Threading, RegEx, AutoCAD

### PROJECTS

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**AI Cooking Assistant** | *Python, JavaScript, HTML, CSS, Git*

December 2024

- Processed **2+ million data points** using OpenAI Batch API to allow LLaMa fine-tuned LLM to generate recipes, reducing processing time by a **factor of 40x** and processing costs to **under \$10**
- Used Flask and Websocket to build a full-stack application that allows user voice input to be processed and requested in real time, facilitating assistant-user conversation
- Built a minimalistic front-end UI with an audio visualizer, combined with TTS/SST functions built with RegEx, allowing the virtual assistant to be responsive and adaptive in conversation with the user
- Designed container using CAD for Raspberry Pi and temperature + gas sensors to collect real-time cooking data

**Coding Club Website** | *JavaScript, HTML, CSS*

March 2023

- Created a front-end application containing the Coding Club syllabus, aiding peers in learning web development
- Built a clean, multi-page application with navbar and smooth animations using HTML, CSS, and JS, **enhancing UX** by making key information and coding concepts more accessible and noticeable
- Designed fully customized code snippets using Prism, allowing code to be presented in an eye-friendly manner by using **colour theory** to match the **UI** theme, resulting in key pieces of code to stand out easily, enhancing UX

**Discord Bot** | *JavaScript, Git*

September 2020

- Used NodeJS to implement the Discord API with modular and asynchronous programming, resulting in the optimized development of a fully functional Discord Bot with a wide variety of custom Discord commands
- Used Git for version control, facilitating **external deployment** to Heroku and DigitalOcean to keep the bot live

### EXPERIENCE

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**Lifeguard, Swim Instructor, and Wading Pool Attendant**

April 2022 – August 2024

*City of Toronto*

*Toronto, ON, CA*

- Ensured patron safety and established good patron rapport, facilitating a welcoming environment
- Taught and examined swim skills, resulting in overwhelming patron satisfaction and **supervisor gratitude letter**
- Maintain Lifesaving and Swim Instructor Qualifications (**7 certifications**), **25+ training hours annually**

**Mentor**

July 2022 – July 2022

*University of Toronto*

*Toronto, ON, CA*

- Aided UoF students and professors in delivering engineering lectures and workshops, facilitating a fun and engaging atmosphere with the children which resulted in increased learning

**Math Contest Tutor**

December 2020 – September 2021

*Feng Da Education*

*Toronto, ON, CA*

- Taught advanced, contest-level math concepts to 12-13 year olds by creating personalized lessons and weekly homework practice to engage and motivate students to learn

### HONOURS AND CERTIFICATIONS

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- Governor General's Medal of Canada** for maintaining the highest academic average in high school (2024)
- Paris 2024 Olympic Swimming Trials Qualifier**, Canadian Nationals Finalist (2024)
- RCM Piano Level 10 First-Class Honours + Level 7 and 8 Certificates with Distinction (2023)

### EDUCATION

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**University of Waterloo**

Waterloo, ON, CA

*Bachelor of Software Engineering*

*Sept. 2024 – Apr 2029*

- Grade Average: 92%
- Varsity Swimming

**Parkdale Collegiate Institute**

Toronto, ON, CA

*International Baccalaureate Diploma + Ontario Secondary School Diploma*

*Sept. 2020 – Jun 2024*

- Founder + President of Coding Club; President of Announcements Team; 150+ Hours of Community Service