

Ethan Liu

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EDUCATION

University of Western Ontario

London, ON

Bachelors of Engineering Science (BESc), Software Engineering (GPA: 3.7)

Sep. 2022 – Expected Apr. 2026

- Co-founder of Western Tech for Social Impact, a club dedicated to providing great tech for non-profit needs.

EXPERIENCE

Chatbot Developer

May. 2024 – May. 2024

ITEK-Metallic Solutions

Richmond Hill, ON

- Monitored and refined **chatbot** interactions to maintain a smooth user experience and high customer satisfaction, with **76% of users satisfied** with chatbot responses without needing a transfer to a human.
- **Trained a chatbot** powered by **Claude 3 LLM** for the company website, utilizing data from **over 150** past customer queries and website interactions to ensure concise and informative responses for a seamless user experience.

Analyst, Product Effectiveness

May 2023 – Aug. 2023

RBC Insurance

Mississauga, ON

- Performed **user acceptance testing** within an Agile software development environment on various digital e-Applications, via designing and executing a **over 200** varied test cases, achieving **90% test coverage**.
- Managed **bug testing and tracking processes** within the **Jira** platform, ensuring meticulous identification, reporting, and resolution of **over 50 identified defects** to ensure product quality.
- Acquired a **comprehensive understanding of the end-user experience**, ensuring the effectiveness and user-friendly nature of the applications.

PROJECTS

devCircle | *JavaScript, React, Next.js, Algolia, Firebase, Tailwind*

Jun. 2024 – Present

- Conceptualized and built **devCircle**, an online platform enabling student developers to share their side projects, receive valuable peer feedback, and find inspiration from other creative and original side projects.
- Enhanced user experience by integrating key features, such as **real-time project feedback** suggestions, **AI-powered full-text search** with **Algolia**, highly **customizable profiles** to make every user unique, **image upload** functionality on posts, and **comprehensive project categorization** through tags and tech stacks.
- Leveraged **Next.js** for server-side rendering, static site generation, and incremental static regeneration. Utilized **Firebase** for authentication, **Firestore CRUD operations** to power website functionality and real-time like and suggestion features, enhancing interactivity and user experience.

Disaster Tracker | *JavaScript, HTML, CSS, Node.js, Express, Leaflet API*

Jan. 2024 – Jan.2024

- Engineered a web application within a **7-hour** timeframe for Western Engineering Competition 2024. Implemented rapid parsing of an assigned extensive database containing **over 1000** pre-existing natural disasters, seamlessly integrating **data visualization** through the client-side **Leaflet API** to dynamically plot and interact with disaster locations on an interactive map.
- Developed key application functionality, enabling **dynamic disaster filtering** based on disaster type and intensity levels, while seamlessly integrating the capability to **add new disasters** to the mapping system.

In English Please! | *TypeScript, React, Node.js, Express, Google Cloud APIs*

Nov. 2023 – Nov. 2023

- Created for HackWestern X, **In English Please!** is a web application that enhances user accessibility by allowing **seamless translation of complex ingredient labels** through photo capture, selecting complicated ingredients and simplifying them into user-friendly equivalents.
- Developed image upload functionality and integrated it into existing platform, utilizing **Google Cloud storage buckets** to enhance scalability and improve data management.
- Designed and implemented the translation functionality by utilizing a multi-step algorithm to compare the extracted text via **Google's Vision AI API** with a comprehensive database of ingredients, with **96% accuracy**.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Java, Python, C#, SQL, HTML, CSS

Frameworks/Libraries: React, Bootstrap5, Tailwind, Node.js, Next.js, Express, JavaFX, PyQt5,

Developer Tools: Git, Firebase, Postman, Algolia, Jira, VS Code, Visual Studio, IntelliJ