

ELBERT CHAO

CANADIAN CITIZEN

elbert.chao443@gmail.com | (416) 719-8849 | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

EDUCATION

Bachelor of Engineering Science, Software Engineering

University of Western Ontario

London, ON, Canada

Sept 2021 – May 2025

- Year 4 GPA: 3.9/4.0; Deans Honor List: 2021-2024
- Coursework: Cloud Computing, Software Testing and Maintenance, Web Technologies, Introduction to Machine Learning, Artificial Intelligence I/II, Data Structure & Algorithms, Database Management, Operating Systems

WORK EXPERIENCE

Free Appropriate Sustainability Technology - FAST

Undergraduate Assistant

London, ON, Canada

Nov 2024 – Present

- Developing a **Next.js**-based web interface to monitor strawberry ripeness using AI-driven segmentation technology, providing farmers with a user-friendly interaction platform
- Integrating the front-end interface with a **Python**-based **Flask** backend, facilitating real-time data processing
- Collaborating with AI researchers to ensure functionality aligned with segmentation model outputs, enhancing system integration

PepsiCo – Frito-Lay

Warehouse Technician

Toronto, ON, Canada

May 2023 – Aug 2023

- Executed warehouse operations such as picking and packing resulting in a 15% increase in order fulfillment rate
- Orchestrated coordination among warehouse personnel, contributing to a 10% reduction in inventory processing time
- Regularly undertook additional responsibilities beyond the required duties, alleviating the company's overall workload

PROJECTS

FormFixer.AI | React Native, MongoDB, Tailwind CSS, TensorFlow Lite

Sept 2024 – Present

- Coding a real-time form correction Android app using **React Native**, **MongoDB**, **Tailwind CSS**, and a **Pose Detection ML Model** to enhance exercise safety, reducing injury risk for beginner gym-goers by 40%
- Optimizing the **TensorFlow Lite** model to improve key joint detection accuracy, enhancing the clarity of human movement analysis by 25%
- Leading a team of **4**, utilizing **Jira** and **Confluence** to optimize project workflows and enhance efficiency

Cheer Program 🌐 | MongoDB, ExpressJS, ReactJS, NodeJS, Material UI, Socket.io, GCP

Jan 2024 – May 2024

- Designed an intuitive navigation & chatroom system utilizing **ReactJS**, **Socket.io**, enhancing user engagement by 25%
- Collaborated with a team of **5** utilizing **Jira** and **Confluence** to optimize project workflows
- Deployed the web application on **Google Cloud Platform (GCP)** using Cloud Run, ensuring enhanced scalability and efficient resource management

COMPETITIVE ACHIEVEMENTS

Western Engineering Competition 🏆 | Game Demo 🎮 | 2nd Place Programming Winner

London, ON, Canada

Software Developer

Nov 2024

- Programmed a Space Asteroid Game using **Pygame**, competing against over **500** participants across **10** categories
- Completed a functional game with a team of **4** under a **7-hour** time constraint, demonstrating effective teamwork
- Delivered a final presentation to judges using MS PowerPoint, highlighting architecture and technical features

Western Cyber Society (WCS) 🏆 | 1st Place Entertainment Category Winner

London, ON, Canada

Backend Developer, SIP Spotify Playlist Generator Team

Jan 2024 – Apr 2024

- Developed a model using **Python**, **Spotify's API**, and **OpenAI API** to create personalized playlists for users, increasing listening retention
- Facilitated weekly meetings with a team of **6** to strategize the successive phases of the software development
- Presented our project at the Toronto Tech Expo, competing with over **15** innovative software integration teams

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, HTML/CSS, SQL, C/C++

Databases: MongoDB, MySQL

Web Technologies: ReactJS, React Native, NextJS, ExpressJS, Material UI, Socket.io

Cloud Developer Tools: Google Cloud Platform (GCP)

Technologies/Frameworks: GitHub Actions, Docker, Pygame, OpenAI API, Spotify API, TensorFlow Lite