Elbert Chao

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EDUCATION

University of Western Ontario	Sept. 2021 – May 2025

Software Engineering (BESc) Dean's Honours List 2021-2024 **(Year 4 GPA: 3.9)**   London, ON
Coursework: Cloud Computing, Web Technologies, Data Structures & Algorithms, Database Management, Intro to Machine Learning, Artificial Intelligence I/II, Software Testing & Maintenance

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, SQL, HTML/CSS
Frameworks: React, NextJS, Flask, Node, Express, Next.js, React Native
Tools: GCP, MongoDB, Docker, MySQL, Nginx, PM2, TensorFlow Lite

EXPERIENCE

Free Appropriate Sustainability Technology – FAST 🔗	Nov. 2024 – Present
Full Stack Developer (NextJS, Python, Flask, Nginx, PM2)	London, ON

- Developed a full-stack web application leveraging Next.JS and Flask to integrate a Machine Learning Model for strawberry ripeness and disease analysis, increasing crop assessment by **90%**
- Enhanced AI model performance by conducting real-world tests, systematically debugging edge cases and refining feature inputs, achieving classification speeds under **500ms**
- Deployed on Western University's domain (uwo.ca), utilizing Nginx for reverse proxying and PM2 for process management, resulting in **95% server uptime**
- Configured the production environment, managing SSL certifications, UFW firewall rules, and server optimizations, resulting in a **50% reduction** in deployment issues

PROJECTS

FormFixer.AI	Sept. 2024 – Present
Team Lead (React Native, MongoDB, Tailwind CSS, TensorFlow Lite)	London, ON

- Engineered a real-time form correction app with React Native, designed for new gym-goers to enhance exercise safety, reducing injuries by **40%**
- Optimized the TensorFlow Lite model to refine joint detection accuracies, enhancing the clarity of human movement analysis by **25%**
- Led a team of 4 developers by optimizing workflows using Jira and Confluence, improving communication flow and minimizing bottlenecks during sprints by **35%**

CHEER Program 🔗	Sept. 2023 – May 2024
Team Lead (React Native, MongoDB, Tailwind CSS, TensorFlow Lite)	London, ON

- Developed a full-stack web application using the MERN stack, enabling a social platform for children with special needs while providing workers with clock-in/out functionality and comprehensive client and admin features, increased the ease of use by customers by **30%**
- Designed an intuitive navigation & chatroom system, increasing user engagement by **25%** by leveraging ReactJS andSocket.io for real-time communication
- Collaborated with a team of **5** to optimize project workflows, increasing task tracking **efficiency by 40%** by utilizing Jira and Confluence for streamlined task management
- Enhanced web application **scalability by 40%** by deploying on Google Cloud Platform (GCP) with Cloud Run,ensuring efficient resource utilization and cost-effective performance