

Eddie Chen

647-886-4399 | 3623lettere@gmail.com |
Markham, ON | [linkedin.com/in/yi-chen-82492323a](https://www.linkedin.com/in/yi-chen-82492323a)

PROFESSIONAL SUMMARY

Electromechanical Software Engineer with a unique combination of hands-on electrical experience and a strong software engineering background in AI and machine learning. Skilled in embedded systems, automation, computer vision, and mobile/full-stack development. Experienced with industrial electrical installations and a solid understanding of electromechanical systems — well-positioned to bridge hardware and software in modern robotics environments.

TECHNICAL SKILLS

Robotics / Automation: ROS2 familiar, Electrical systems, industrial panel installation, control wiring, 12V–600V High-Voltage Industrial Control Systems

AI / Machine Learning: TensorFlow, PyTorch, Keras, Scikit-learn, OpenCV (CV2), Pandas, Matplotlib

Programming Languages: Python, Java, C#, Kotlin, JavaScript

Embedded & Systems: Linux/UNIX, ROS-ready, real-time data pipelines, AWS EC2/S3

Web & Mobile Dev: React Native, React, Node.js, Angular, FastAPI, REST APIs

Databases: MongoDB, DynamoDB, MySQL, Oracle, SQL

Tools & Platforms: Git/GitHub, AWS, Google Firebase, Figma, Microsoft Office

Equipment: Boom lifts, forklifts, scissor lifts, industrial hand tools

WORK EXPERIENCE

Full Stack Software Engineer Intern | *Wimtach* | Toronto, ON | Apr 2024 – Sept 2024

- Developed a cross-platform mobile app using React Native and Python with Google Maps API, compatible with iOS and Android.
- Enabled users to map planting sites using polygon tools with real-time tree placement visualization — demonstrating skills in spatial data relevant to robotics path planning.
- Integrated front-end and back-end systems using FastAPI; managed data storage with AWS S3 and MongoDB.
- Deployed back-end services on AWS EC2 and implemented JSON/CSV data export pipeline for geospatial data.

Apprentice Electrician | *PowerLink Electric Inc.* | Toronto, ON | May 2019 – Mar 2020

- Installed and commissioned industrial electrical panels; operated 12V control systems and 347/600V lighting — directly applicable to robotics power and control systems.
- Installed Tim Hortons drive-through automation systems and adapted equipment to site requirements.
- Deployed and calibrated industrial IoT sensors (fire-detection, camera systems) across logistics facilities, ensuring precise data acquisition for automated monitoring above 50 feet in a logistics facility.
- Operated boom lifts, forklifts, and scissor lifts safely in industrial environments.

Electrician Intern | *Hunter and Sniper Electric Inc.* | Toronto, ON | May 2017 – Oct 2018

- Performed commercial wiring and installed three-way lighting control systems.
- Installed residential panels, outlets, and switches under journeyman supervision.

EDUCATION

Diploma – Artificial Intelligence: Software Engineering Technology

Centennial College, Toronto, ON | Jan 2022 – Jan 2025 | GPA: 4.1 / 4.5

RELEVANT PROJECTS

Machine Learning for Traffic Accident Prediction

- Built a predictive ML model analyzing spatial-temporal data (applicable to predictive maintenance and autonomous navigation).

OpenAI Chatbot with AWS (Group)

- Built an AI-powered chatbot using OpenAI API with AWS S3 for storage and AWS Polly for text-to-speech conversion.

Mobile Application for Library Management (Android)

- Developed an Android app using MVVM architecture, LiveData, Google Firebase, and Room Database — demonstrating ability to build real-time embedded UI systems.

Inventory Management System

- Built a full-stack Angular web app with RESTful APIs, MongoDB, and RxJS Observables for real-time data tracking.