

YUANLONG CUI

Electrical and Computer Engineering (MEng), University of Toronto

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EDUCATION

UNIVERSITY OF TORONTO

TORONTO, ON, CANADA

Electrical and Computer Engineering
(MEng)

2023 – 2025

UNIVERSITY OF WATERLOO

WATERLOO, ON, CANADA

Mechatronics Engineering (BASc)

2018 – 2023

- GPA: 86.63
- Top relevant courses:
 - ❖ ECE457A: Co-operative and Adaptive Algorithms
 - ❖ ECE459: Programming for Performance
 - ❖ CS446: Software Design and Architectures

AWARDS & HONOURS

- President's International Experience Award (2022)
- Dean's Honours List (2019)
- President's Scholarship of Distinction (2018)

SKILLS

LANGUAGES

- JavaScript (Node.js), TypeScript, HTML, CSS
- C/C++, Python, Java

LIBRARIES/Frameworks

- Express.js, NestJS
- React, Angular, Vue
- Qt/QML

OTHERS

- Git, HTTP, TCP/IP, Redis, PostgreSQL, Jenkins
- GNU/Linux, OOP, Multi-threading, RTOS, ROS

PROJECT EXPERIENCE

ROBOFEEDER | Robotics Design Project (ROBOHUB, UNIVERSITY OF WATERLOO)

September 2022 – March 2023

- ❖ Developed a closed-loop control system on **Linux** with **ROS** and **Python** that drives robotic arms to autonomously feed people with disabilities with 95%+ accuracy
- ❖ Presented the project to 8,000+ people by building a website using **React**, making marketing videos using **Davinci Resolve**, and giving live demos to the guests at Waterloo Engineering Symposium 2023
- ❖ Coordinated miscellaneous work that helped to complete the project more efficiently, such as communicating with the supervisors for their feedback and connecting with the faculty for resources and supports

TRIP-WISE | Software Design Project (UNIVERSITY OF WATERLOO)

January 2023 – April 2023

- ❖ Designed and built an Android app using **Java / Kotlin** and **Google Map APIs** intended to help citizens discover local landmarks by providing a Landmarks Map and a Trip Planner
- ❖ Built a team of 6 people, made meeting agendas, and presented the project to over 100 professors and students through demo videos and live presentations

WORK EXPERIENCE

DEEP TREKKER | Application Software Engineer (KITCHENER, ON, CANADA)

May 2022 – August 2022

- ❖ Built a Digital-Pan-Tilt-Zoom feature for auxiliary cameras as the **project owner** by developing the camera SDK, designing the control algorithms, and building the backend in **C++ (OOP)**
- ❖ Facilitated resolving performance issues for vehicle controllers by developing a **Qt** application that allows monitoring the hardware metrics on **Linux** systems

AUTHING | Full-Stack Developer (BEIJING, CHINA)

September 2021 – December 2021

- ❖ Independently developed plans and built a **Redis** proxy mechanism with **Node.js** that reduced redundant database access by over 95%
- ❖ Collaborated with Android developers and built One-Tap Login feature using **NestJS**, which allowed mobile users to log in with phone number within 1 second
- ❖ Built websites (**AJAX**) for the Console (**React**) and Docs (**Vue**), including Search Result & Filter, Guide Flow, Configuration Form, etc.
- ❖ Contributed to **open-source** Authing SSO SDK (npm) by developing convenient IDaaS features for web developers, with over 700 weekly downloads

GENESYS | Software Engineer (MARKHAM, ON, CANADA)

September 2019 – December 2019

- ❖ Designed and implemented a DevOps pipeline using **Jenkins** and **Node.js** that regulated the use of npm packages, expected to eliminate software regression caused by external libraries
- ❖ Designed and built a login switch that supported multiple login types using **AngularJS (MVC/MVVM)**, which reduced login failures by over 70%
- ❖ Actively promoted Genesys AI products by designing and building mobile apps that combined Genesys AI with state-of-the-art technologies