

Lucian Cheng

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Education

McMaster University

Sep 2021 - May 2026

Bachelors of Mechatronics Engineering and Biomedical Engineering Co-op

Hamilton, ON

- **CGPA: 3.99/4.0**, Provost Honour Roll 2022, 2023, Top 1% of Engineering Cohort
- **Courses:** Data Structures & Algorithms, Software Development, Mathematics, Statistics, Computer Architecture, Operating Systems, Computer Systems Software, Embedded Systems

Professional Experience

Meta

May 2025 - Aug 2025

Incoming Software Engineer Intern

Menlo Park, CA

Bluewrist Inc.

May 2024 - Aug 2024

Software Engineer Intern

Markham, ON

- Led a **5-person** team to develop a large-scale full-stack ML application with minimal guidance, designing stakeholder diagrams using **VB**, **Python**, and Agile methodologies
- Created and optimized a scalable **Flask** server RESTful API interface, supporting real-time communication for anomaly detection models in production environments with a cloud infrastructure
- Implemented 2D anomaly detection models with **98%** accuracy using **PyTorch**, enabling scalable deployment
- Developed an automated image-tiling algorithm leveraging **CUDA** to accelerate ML model training by distributing tasks across GPU cores, increasing system efficiency by **95%**

Bluewrist Inc.

May 2023 - Aug 2023

Software Engineer Intern

Markham, ON

- Implemented the PointNet++ CNN Machine Learning Artificial Intelligence model in PyTorch for part segmentation of computer vision from 3D point cloud data, resulting in a **4-week** time reduction across **10 people**
- Optimized runtime by **86.4% (38.1s)** per **250k** points using a **C++** inference program with LibTorch & CMake, enabling faster real-time processing and reducing downtime in production systems and internal tools
- Created a full-stack GUI internal tool using **VB.NET** to facilitate in-house training and testing, handling **>600** samples

McMaster EcoCAR

Oct 2022 - Present

CAVs Software Engineer

Hamilton, ON

- Collaborated with **5** cross-functional teams to deliver production-ready SAE Level 2 vehicle autonomy code, ramping up quickly on the codebase and systems under tight deadlines
- Developed **Python** and **C++** algorithms for lead vehicle identification, processing data from **100+** simulated vehicles and boosting detection accuracy by **15%**

McMaster University


Sep 2023 - Dec 2023

Physics and Circuits Teaching Assistant


Hamilton, ON

- Mentored **8-9** students bi-weekly on challenging statics concepts, elevating their grades to **>90%** through lab tests

Projects

Jaylofdez | React, ExpressJS, NodeJS, MongoDB, AWS, GCP | 

- Developed and deployed a scalable cloud-native social media platform for **100+** users, leveraging **AWS S3** for scalable asset storage and optimizing backend performance to handle high-traffic conditions, generating **\$600+** in profit

Mac2Cal | NextJS, Supabase, GCP | 

- Developed a web application for McMaster students to upload schedules to Google Calendar, gaining **150+** users

Technical Skills

Programming: Python, C++, JavaScript, TypeScript, Java, SQL, Swift, HTML, CSS, C

Technologies: React, Node, Express, MongoDB, Spring Boot, Flask, .NET, CUDA, PyTorch, Docker, MATLAB

Tools and Platforms: Git, Github, JIRA, SVN, Linux, AWS (EC2, S3), GCP, PostgreSQL, MySQL, GPU

Concepts: Distributed Systems, Automation Tools, Life Cycle, Reliability, Performance Optimization, Rest API, OOP