

Timothy Mao

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EDUCATION

University of Ottawa

Sep. 2021 – Dec. 2025

Honours BSc in Computer Science (CO-OP)

Ottawa, ON

- CGPA 9.20/10
- Completed a supervised honours project (see below)

WORK EXPERIENCE

IT Technician

Sep. 2024 – Dec. 2024

Employment and Social Development Canada (ESDC)

Ottawa, ON

- Developed automation scripts in **C#** using **Playwright**, **Gherkin**, and **SpecFlow**

Junior Programmer

Jan. 2024 – Apr. 2024

Immigration, Refugees and Citizenship Canada (IRCC)

Ottawa, ON

- Worked with the Advanced Analytics team to develop automation scripts using **Python**
- Maintained the current roster of stakeholders engaged with SPSS and SAS services

Research Assistant

May 2023 – Aug. 2023

University of Ottawa

Ottawa, ON

- Developed a traffic simulation using **Python** to test an experimental intersection algorithm designed for self-driving cars
- Worked closely with two PhD students, gaining fundamental knowledge in machine learning

VOLUNTEER EXPERIENCE

Vice President Logistics

Oct. 2022 – Apr. 2025

Computer Science Student Association @ uOttawa (CSSA-AEI)

Ottawa, ON

- Maintained record of all 500+ merchandise items in stock
- Monitored incoming and outgoing items and enforced effective measures to prevent loss or damage to assets
- Assisted with rewriting constitutional documents

Community Coordinator

May 2023 – Oct. 2024

Hack the Hill (HtH)

Ottawa, ON

- Organized monthly community engagement events, workshops, internal team-bonding events, etc.
- Created and moderated hackathon Discord server, engaging with 500+ members
- Present for approximately 39 hours during the 36-hour hackathon

PROJECTS

Improving Multimodal Sentiment Analysis of Memes (Honours Project) | *Python*

- Developed an experimental pipeline using CLIP, BERT, and VisualBERT models to analyse image-caption pairs from a large dataset
- github.com/perditi/honours-project

Meme Machine | *Python*

- Implemented a machine-learning model, trained on a small dataset of memes from 2012, whose purpose is to recognize what month of 2012 a given meme originated from
- Submitted during uOttaHack 6

Object Recognition Algorithms | *Java*

- Developed advanced algorithms for object detection and dominant plane identification using DBSCAN and RANSAC

TECHNICAL SKILLS

Languages: Java, Python, C#, Go, JavaScript, HTML, CSS, C++, R

Databases: PostgreSQL, MySQL, Firebase

Other: Windows, Google Workspace, Microsoft Office, Git, Figma, DaVinci Resolve, JIRA, Android Studio, HuggingFace