

Greta Ru-Mei Zu

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EDUCATION

McGill University

- Bachelor of Science in Computer Science (Artificial Intelligence)
- Alma Mater Scholarship*, awarded by McGill University in 2022
- Relevant Coursework: Algorithms & Data structures, Artificial Intelligence, Applied Machine Learning, Software Systems, Operating Systems, Compiler Design, Database Systems, Data Science, Distributed Systems

Montreal, QC, Canada

August 2022 - May 2026

GPA: 3.85/4.0

Marianopolis College

- Diploma of College Studies in Honours Health Sciences
- Dean's List*, in Fall 2020 and Winter 2021

Montreal, QC, Canada

August 2020 - June 2022

R-Score: 37.825

RESEARCH EXPERIENCE

Machine Learning algorithms & Energy efficiency - McGill DISC Lab with Professor Oana Balmau & Professor Bettina Kemme

- Instrumented Switch-Transformers and Qwen *Mixture-of-Experts* models using CodeCarbon on DeepSpeed and FastMoE; profiled GPU energy consumption and identified optimization strategies that reduced energy usage without loss in accuracy.

Montreal, QC, Canada

June 2025 - December 2025

TikTok algorithm analysis - The Prometheus Lab with Professor Joseph Vybihal

- Designed Python-based bots to collect 400+ TikTok videos while bypassing scraping restrictions; conducted statistical analysis using Pandas and Scikit-learn to quantify algorithmic bias in engagement rates by user gender and content sentiment.

Montreal, QC, Canada

Sept 2024 - December 2024

WORK EXPERIENCE

Machine Learning Intern

Ericsson

- Designed and deployed *Retrieval-Augmented Generation* (RAG) pipelines using AWS Lambda, Bedrock, and S3.
- Creating Python-based agentic workflows to generate datasets for fine-tuning; improved workflow latency & results by ~40%.

Montreal, QC, Canada

May 2025 - December 2025

NoteTaker (Data Science course)

McGill University

- Created organized and well-written notes for the McGill Student Accessibility & Achievement program.

Montreal, QC, Canada

Jan 2024 - May 2025

PROJECTS

Artificial Intelligence Agent - AI course term project

- Developed a Python-based agent to play against another player in a game using techniques such as *Monte Carlo Tree Search*, *A* Search* and *heuristics* to efficiently make decisions and win against any opponent; winning top 20% in the class tournament.

Oct 2023 - Dec 2023

Paxos Total Order Game - Distributed Systems project

- Using the Paxos Consensus Algorithm to implement total order for a Java-based multiplayer distributed systems game.

Nov 2024 - Dec 2024

Travel Agency Management System - Database Systems project

- Developed a Java-based application for a travelling agency, to book flights, hotels or rent cars. Created relational schemas, E/R diagrams, *SQL* queries and *JDBC (Java)* to provide a *database* and functions to navigate and use it.

Jan 2024 - May 2024

Compiler - Compiler Design term project

- Designed and created a full compiler from scratch for Mini-C language (subset of C) using Java and Bash scripts for automation.

Jan 2025 - May 2025

SOC-cessful Schedule - Web Development term project

- Designed and created a full-stack website for a booking tool used by school staff and students (*XAMPP stack*, *SQLite3 database*).

Nov 2024 - Jan 2025

McWics Hackathon project - BCV

- Designed a full-stack web-app (*React*, *Drizzle*, *Postgresql*) that generates a CV with most relevant experience using a job description and Gemini API call.

2025

Codejam14 Hackathon project - MealMates

- Designed a full-stack mobile app (*React*, *Django-rest*, *SQLite*) to swipe through images from restaurants & match with friends.

2024

SKILLS & INTERESTS

Programming Languages: Java, Python, C/C++, Bash, Assembly, SQL, Javascript, PHP, OCaml, WebDev languages (HTML/CSS)

Frameworks & Libraries: AWS, Docker, Git, Pandas, NumPy, Matplotlib, Pytorch, TensorFlow, Scikit-learn, CodeCarbon, SQLite, Zookeeper, TCP/IP, REST APIs, Django, Flask

Languages: English (Native) & French (Native)

Interests & Hobbies: Dance, Piano, Figure Skating, DragonBoat, Basketball, Volleyball, Drawing, Reading, Travelling