# Greta Ru-Mei Zu

Personal website: <a href="https://zu-greta.github.io/">https://github.com/zu-greta</a>

#### **WORK EXPERIENCE**

Machine Learning Internship - Ericsson (May 2025 - December 2025)

- Creating and onboarding Retrieval Augmented Generation (RAG) solutions and processing/inference pipelines using AWS and AWS Bedrock services
- Comparing and evaluation RAG solutions

Notetaker (Data Science course) - McGill University (January 2024 - May 2025)

Corrector (Physics lab) - Marianopolis College (August 2022 - June 2023)

#### **PROJECTS**

Artificial Intelligence agent (Nov 2023 - Dec 2023)

 Develop an agent that can win against another player in a game of Colosseum Survival. Using techniques such as Monte Carlo Tree Search, A\* Search and heuristics to efficiently make decisions and win against any opponent.

SOC-cessful Schedule (Nov 2024 - Jan 2025)

 Full-stack web development project (XAMPP, HTML/CSS/Javascript/PHP/ SQLite3) creating a booking tool for school staff and students.

Travel Agency Management System (Feb 2024 - Jan 2025)

 Develop an 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.

Compiler Design project (Jan 2025 - May 2025)

• Design and create a compiler for Mini-C (a subset of the C) using Java.

McWics Hackathon project - BCV (2025)

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

Codejam14 Hackathon project - MealMates (2024)

• Develop a full-stack mobile app (*React-Native, Django-rest, SQLite*) for users to swipe through food images from restaurants and match with friends.

Calendar/Reminder app personal project (July 2024 - Present)

• Develop an iOs Calendar and ToDo list application using SwuitUI and XCode.

#### **RESEARCH PROJECT**

Machine Learning algorithms and energy efficiency - with Professor Balmau & Professor Kemme (June 2025 - August 2025)

 Using CodeCarbon to instrument Switch-Transformers and Qwen Mixture of Experts models running on different frameworks such as DeepSpeed and FastMoE, and exploring solutions to train models more efficiently in terms of energy consumption.

TikTok algorithm analysis - with Professor Vybihal (Sep 2024 - Dec 2024)

Overcoming web scraping data barriers from TikTok using bots and bypassing biases from the algorithm. Analyzing the data to see the different treatment towards user gender, food negative/positive contents and the biases.

#### Contact me:

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### **EDUCATION**

#### McGill University, Montreal QC

Bachelor of Science Computer Science (August 2022 - Ongoing) GPA: 3.84 out of 4.0

#### Marianopolis College, Montreal QC

DCS in Honours Health Science (August 2020 - June 2022) R-Score: 37.825

## **TECHNICAL SKILLS**

#### Languages:

 Java, C/C++, Python, Bash, Assembly, SQL, Javascript, PHP, OCaml

#### Technologies:

 Database systems, Frontend (HTML, CSS), Backend(REST, Node.js), Distributed systems (TCP, Zookeeper), CLI/Shell scripting, AWS, Git, Docker, OOP

#### Relevant Courses:

- Algorithm and Data Structures
- Artificial Intelligence
- Machine Learning
- Software Systems
- Software Design
- Operating Systems
- Algorithm Design
- Database Systems
- Data Science
- Principles of Web Development
- Distributed Systems
- Compiler Design

## **LANGUAGES**

- English (Fluent)
- French (Fluent)