Sam Zhang

+1 (438) 630-2638 | sam.zijing.zhang@gmail.com
linkedin.com/in/zhang-sam | github.com/SamZhang02 | cs.mcgill.ca/~szhang139

EDUCATION

McGill University	Montreal, Canada
B.A., Joint Computer Science and Statistics	*Aug. 2022 – May 2025 (Expected)*
GPA: 3.95/4	

EXPERIENCE

Software Developer Intern | *TypeScript, React, C#, .NET, SQL* — Sept. 2023 - Present
Dayforce — *Toronto, Canada*

- Contributed to full-stack web development on Dayforce, a leading cloud-based human capital management platform. Developed the frontend for Dayforce's position management feature with **TypeScript** and **React**, and the backend microservices in **C#** and **.NET**.
- Worked as a core member in the revamp of the frontend UI, enhancing user experience and client accessibility. Implemented accurate validation logic, and optimizing browser-side performance while ensuring active collaboration with Product and UI/UX teams.
- Cleared tech debts for the team, designed and implemented automated tests using tools like Cypress and Specflow, thereby increasing application reliability and code robustness.

Machine Learning Research Intern | *Hadoop, TensorFlow, Python, Scala, SQL* — May 2023 - Aug. 2023
Meituan — *Shanghai, China*

- Engaged in research and development for Meituan, the largest leading local service platform in China, focusing on the advertisement recommender system.
- Worked on the Click-Through-Rate (CTR) model by deepening its comprehension of both ad context and user interactions, aiming to improve prediction accuracy.
- Conducted two comprehensive offline model experiments, handling tasks from initiation to conclusion. Managed the distributed cleaning, pre-processing, and feature extraction from datasets of over 150TB per experiment utilizing tools like **Hive, Spark, MapReduce** within the Hadoop ecosystem, improving the model's understanding of the ad-user context. Subsequently, developed deployable models using **TensorFlow** for further online testing.

PROJECTS

mcgill.courses | *TypeScript, React, Rust, MongoDB* — Apr. 2023 - Present

- Working on an open-source, ad-free platform for easy search and review of courses and instructors at McGill University, allowing students to have a unified platform for course information and feedbacks.
- Developed the application front-end using **TypeScript**, **React**, and **TailwindCSS**, ensuring a smooth browser-side user experience.
- Implemented and deployed RESTful APIs using **Rust** for server-side logic and **MongoDB** for database management, with data retrieval efficiency and system scalability in mind.

Llmbda | *Pytorch, Python* — Dec. 2023

- Prompted and fine-tuned Meta's open-sourced LLM **Llama2** to generate a formal syntax tree output to investigate Large Language Models' (LLM) ability to understand logical semantics in semi-formal natural language.
- Developed from scratch unique evaluation metrics to evaluate model performances based on their syntax tree output, and pipelined the evaluation process using Python.

Obsidian LateX Algorithm | *TypeScript* — Mar. 2023

- Developed with **TypeScript** a plugin for the electron-based markdown editor app *Obsidian* to facilitate the process of writing mathematical algorithms and pseudocodes within the editor.
- Acquired over 3,000+ downloads.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, Scala, C, C++, C#, Rust, SQL
Databases: SQLite, HiveQL, MySQL, MongoDB
Frameworks & Libraries: React, TailwindCSS, TensorFlow, PyTorch, .NET
Tools: Git, Docker, Spark, Hadoop
Languages Spoken: English, French, Chinese Mandarin, Chinese Cantonese