

Emmanuel Ma

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EDUCATION

B.Sc

09/2020 – 05/2024 | Montreal, QC

McGill University

Honours Software Engineering, Minor in Philosophy

Relevant courses: Software Design, Applied Machine Learning, Reinforcement Learning

PROFESSIONAL EXPERIENCE

Global Product and Technology Intern

06/2023 – 08/2023

ADP - Automatic Data Processing

- Fine-tuned a Transformer-based Large Language Model for a client onboarding platform, exceeding 80% testing accuracy on an 800+ class text categorization task.
- Designed and implemented an ensemble model by combining Support Vector Machine and Naive Bayes learning algorithms, outperforming the pre-existing machine learning solution by ~10% on production data.

Software Engineer

05/2022 – 08/2022

Mood Disorder Society of Canada

- Integrated Meta's Wav2vec2 speech recognition model with the Flask backend, increasing user accessibility by 15%.
- Implemented chatbot timeout logic as a user privacy protection measure.
- Fixed various front end bugs with the chatbot and internal portal.

SKILLS

- Python, Java, Javascript, React.js, Node.js, PyTorch, scikit-learn, Databricks, NumPy, Pandas, Matplotlib, MongoDB

ORGANIZATIONS

Computer Science Undergraduate Society

01/2022 – present

Helpdesk Tutor

- Tutor undergraduate students weekly on course topics such as Python, Java, C, Unix/Linux, Bash, MIPS assembly, algorithms and data structures, automata theory and software design.
- Spearheaded a COMP250(Introductory computer science) review session with 250+ attendees.

McGill Competitive Programming Club

05/2023 – present

Workshop Lead

- Organized and lead workshops and seminars during the school year for competitive programmers of all levels of experience.

PROJECTS

Compiler for a mini-C lang

Wrote a compiler in java that supports a subset of the C language, with MIPS assembly as the backend target.

Fullstack Finance Dashboard 🔗

- Developed a responsive fullstack app allowing users to view market trends, latest financial news and track their portfolio.
- Built the backend API enabling stocks to be stored in an online database and make calls to third party APIs.
- **Tech stack:** React, Node.js, Express, MongoDB, Tailwind, AlphaVantage and Yahoo Finance APIs, Heroku

Web Scraper News App 🔗

- Created a web app that scrapes articles from news sites and displays only positive news.
- Designed and implemented the backend server to query the SQL database and run the Python script.
- **Tech stack:** Vue, Flask, Bootstrap, SQL, Python, BeautifulSoup

AWARDS

Tomlinson Engagement Award for Mentorship

01/01/2023

McGill University