JOEY YU

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EDUCATION

McGill University — Montreal, QC
Bachelor of Arts — Sep. 2022 - May. 2025
- Major in Software Engineering.
- Major in Statistics.
- Activities: International Buddy Program.

Dawson College — Montreal, QC
Enriched Pure and Applied Science — Aug. 2020 - May. 2022
- Activities: SPACE initiative. DawsonAI initiative. Volunteer Math Tutoring.

WORK EXPERIENCE

Ciena Canada — Montreal, QC
Software Developer Intern — May. 2022 - Present
- Continuing my previous work in the AI Framework for ENCQOR Distributed Fabric.

P4labs — Montreal, QC
Research and Development Intern — Mar. 2022 - Present
- Designing a high level library that works with a specific 4WD Arduino-based robot and that can be extended by other developers for different applications.

Dawcon College — Montreal, QC
Research Intern — Jan. 2022 - May. 2022
- Recipient of the FRQNT-MITACS College Research Internship Award.
- Focused on network searching and surveillance problems.
- Currently working on a publishable study of eternal domination in dynamic graphs.

Ciena Canada — Montreal, QC
Software Developer Intern — Jun. 2021 - Jan. 2022
- Recipient of the Mitacs Accelerate Internship Award.
- Worked on the ENCQOR 5G research project with industry partner Ciena Canada.
- Built helper functions in the Python AI Framework for ENCQOR Distributed Fabric (EDF).
- Built testing tools to help with the evaluation of RL models in the emulated EDF environment.
- Wrote unit tests for all of the above functions.
- Minor bug fixes in a Golang codebase.

VOLUNTEER EXPERIENCE

Dawson College — Montreal, QC
Mathematics Tutor — Jan. 2021 - May. 2022
- SHS (Students-Helping-Students) weekly volunteering sessions.
- Tutoring students Calculus 1, Calculus 2 and Linear Algebra.

PixelExperience — Montreal, QC
Project Maintainer/Administrator — Aug. 2019 - Apr. 2021
- An aftermarket Android firmware based on Google's Android Open Source Project.
- Maintainer for the OnePlus 5/5T, which have received over 10k downloads.
- Merged upstream changes from LineageOS and Linux Kernel Stable v.4.4.x tag.
- Participated in code reviews, and wrote blog posts.

PERSONAL PROJECTS

Seq2seq Arithmetic — Apr. 2022
- Trained a LSTM network with the sequence to sequence model to perform simple arithmetic such as the addiction of two ≤ 5 digits positive integers, with string inputs.
- Built with Python using Tensorflow's Keras API.
- GitHub: `https://github.com/itsjoeoui/seq2seq-arithmetic`

React Todolist   Mar. 2022
- A simple todolist web app built with React, with a fake json-server backend.
- GitHub: `https://github.com/itsjoeoui/react-todo`

Astro: Star Formation   Nov. 2021
- McGill Physics Hackathon 2021 Team Project (Winner of the Astro Challenge).
- It simulates the formation of a star from small particles in space using basic physics.
- Video: `https://www.youtube.com/watch?v=JG4PJDeQ5Hw`

TreeHugger - A Social App for Reconnecting With Nature   Mar. 2021 - Sep. 2021
- A social app (prototype) that focuses on sustainability and mental health.
- The front-end is built with React Native, and the back-end is hosted on Firebase.
- Article: `https://space.dawsoncollege.qc.ca/explorations/article/treehugger`

Discord Bot   Oct. 2020 - Aug. 2021
- It is able to stream music in voice chat, solve math problems using Wolfram Alpha, etc.
- Built with Python using the discord.py API.
- GitHub: `https://github.com/itsjoeoui/shahab`

Heat Mapping and Dynamic Heat Distribution   Nov. 2020
- Team project for the McGill Physics Hackathon 2020, built with Python and C++.
- Winner of the P4labs Heat Rover mini-coding challenge.
- Video: `https://www.youtube.com/watch?v=Ok2_Vdl1S_I`

SKILLS & INTERESTS

Proficient: Python, Git, Gerrit, Linux, Numpy, Pandas, Seaborn, Plotly, Dash, Heroku.

Exposure: Sklearn, TensorFlow, Pygame, Django, Golang, React, React Native, C, C++, Java, Javascript, TypeScript, Latex, Hugo, Flutter, GCP, AWS, Azure, Firebase, REST API, AOSP, Linux Kernel.

Interests: Algorithms, Data Structure, Backend Development, Machine Learning, Neural Networks.

CERTIFICATIONS

Go: The Complete Developer's Guide (Golang)	Stephen Grider - Udemy Jul. 2021
Python for Data Science and Machine Learning Bootcamp	Jose Portilla - Udemy Jan. 2021
2020 Complete Python Bootcamp: From Zero to Hero in Python	Jose Portilla - Udemy Jul. 2020

HONORS & AWARDS

FRQNT-MITACS College Research Internship Award - $5,000	FRQNT-Mitacs Jan. 2022
McGill Physics Hackathon 2021 Astro Challenge - Winner	McGill Physics Hackathon Nov. 2021
Mitacs Accelerate Internship Award - $10,000	Mitacs Accelerate Jun. 2021
McGill Physics Hackathon 2020 Mini-coding Challenge - Winner	McGill Physics Hackathon Nov. 2020

LANGUAGES

Chinese: Native Proficiency.

English: Professional Working Proficiency.

French: Elementary Proficiency.