JOEY YU

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EDUCATION

McGill University — Montreal, QC
Bachelor of Arts - Math and Computer Science. — Sep. 2022 - Apr. 2025

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

WORK EXPERIENCE

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 - Present
- Recipient of the FRQNT-MITACS College Research Internship Award.
- Working on network searching and surveillance problems.

Ciena Canada Inc. — Montreal, QC
Software Developer Intern — Jun. 2021 - Jan. 2022
- Recipient of the Mitacs Accelerate Intership 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.

Dawson College — Montreal, QC
Peer Tutor — Sep. 2021 - Present
- Mostly tutoring Math and Physics, but able to do Chemistry and Biology as well.
- Math: Calculus 1, Calculus 2, Linear Algebra.
- Physics: Mechanics, Waves and Optics, Electricity and Magnetism.

VOLUNTEER EXPERIENCE

Dawson College — Montreal, QC
Mathematics Tutor — Jan. 2021 - Present
- SHS (Students-Helping-Students).
- Tutoring 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

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 presentation: 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 - Present
- It is able to stream music in voice chat, solve math problems using Wolfram Alpha, etc.
- Built with Python.

COVID-19 Data Visualization   Jan. 2021 - Feb. 2021
- A simple COVID-19 data visualization tool built with Plotly/Dash.
- Preview: corona.itsjoeoui.com (Hosted on Heroku).

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 presentation: https://www.youtube.com/watch?v=Ok2_Vdl1S_I

SKILLS & INTERESTS

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

Exposure: Golang, React, React Native, Java, Javascript, TypeScript, Sklearn, TensorFlow, Pygame, HTML, CSS, Django, Bootstrap, Hugo, Flutter, GCP, AWS, Azure.

Interests: Algorithms, Data Structure, Backend Development, Machine Learning, Data Science.

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
Winter 2021 - Semestral Honours	Dawson College Jun. 2021
Fall 2020 - Semestral Honours	Dawson College Feb. 2021
McGill Physics Hackathon 2020 Mini-coding Challenge - Winner	McGill Physics Hackathon Nov. 2020
Carley Contest - Certificate of Distinction	University of Waterloo Jan. 2019
Pascal Contest - Certificate of Distinction	University of Waterloo Jul. 2018

LANGUAGES

English: Professional Working Proficiency.

French: Elementary Proficiency.

Chinese: Native Proficiency.