

# JOEY YU

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## EDUCATION

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**McGill University** Montreal, QC  
Math and Computer Science. September. 2022 - Future

**Dawson College** Montreal, QC  
Enriched Pure and Applied Science. Aug. 2020 - Present

## WORK EXPERIENCE

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**Dawcon College** Montreal, QC  
*Research Intern* Jan. 2022 - Present

- Researching eternal domination problems on a dynamic graph.

**Ciena** Montreal, QC  
*Software Developer Intern* Jun. 2021 - Jan. 2022

- Built a converter in Python that converts Request objects in the form of acyclic trees to TOSCA YAML intent requests using DFS.
- Built a service request generator that sends TOSCA YAML intent requests to the network fabric emulator for testing the outcome of ML models.
- 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

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**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

- Maintainer for the OnePlus 5/5T (Snapdragon 835 Mobile Platform).
- Merging upstream changes from LineageOS and Linux Kernel Stable v.4.4.x tag.

## PERSONAL PROJECTS

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**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.
- We wrote our own Particle class that simulates the movement of a star, and we built the simulation using PyGame.
- Video presentation: <https://www.youtube.com/watch?v=JG4PJDeQ5Hw>

**TreeHugger - A Social App for Reconnecting With Nature** Mar. 2021 - Sep. 2021

- A social app that focuses on sustainability and mental health.
- The front-end is built with React Native, and the back-end is hosted on Firebase.

**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](https://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.

## SKILLS & INTERESTS

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**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:** Backend, Full stack, Machine learning, Algorithms, Data Structure.

## CERTIFICATIONS

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| <b>Go: The Complete Developer's Guide (Golang)</b>                | Stephen Grider - Udemy<br>Jul. 2021              |
| <b>Python for Data Science and Machine Learning Bootcamp</b>      | Jose Portilla - Udemy<br>Jan. 2021               |
| <b>2020 Complete Python Bootcamp: From Zero to Hero in Python</b> | Jose Portilla - Udemy<br>Jul. 2020               |
| <b>Using Python to Access Web Data</b>                            | Dr. Charles R. Severance - Coursera<br>Jun. 2020 |
| <b>Python Data Structures</b>                                     | Dr. Charles R. Severance - Coursera<br>Jun. 2020 |
| <b>Programming for Everybody</b>                                  | Dr. Charles R. Severance - Coursera<br>Jun. 2020 |

## HONORS & AWARDS

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| <b>McGill Physics Hackathon 2021 Astro Challenge - Winner</b>                   | McGill Physics Hackathon<br>Nov. 2021 |
| <b>Enriched Science Outstanding Activity Award</b>                              | Dawson College<br>Jun. 2021           |
| <b>Winter 2021 - Semestral Honours</b>  | Dawson College<br>Jun. 2021           |
| <b>Students-Helping-Students Certificate of Volunteering Free Zoom Sessions</b> | Dawson College<br>May. 2021           |
| <b>Fall 2020 - Semestral Honours</b>  | Dawson College<br>Feb. 2021           |
| <b>McGill Physics Hackathon 2020 Mini-coding Challenge - Winner</b>             | McGill Physics Hackathon<br>Jan. 2020 |
| <b>Carley Contest - Certificate of Distinction</b>                              | University of Waterloo<br>Jan. 2019   |
| <b>Pascal Contest - Certificate of Distinction</b>                              | University of Waterloo<br>Jul. 2018   |

## LANGUAGES

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**English:** Professional Working Proficiency.

**French:** Elementary Proficiency.

**Chinese:** Native Proficiency.