

MUHAMMAD SOHAIL

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Montréal, QC

mhsohail56

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Undergraduate computer science student at McGill University with interests in data science, web development, and AI.

EDUCATION

McGill University | B.Sc. – Honours Computer Science 📅 Sep 2020 – May 2024 (expected) 📍 Montréal, QC

4.0 / 4.0 cGPA. Coursework in Algorithms and Data Structures, Software Systems and Computer Systems/Architecture. Dean's List 2020-2021

O'Neill C.V.I. | High School Diploma 📅 Sep 2016 – Jun 2020 📍 Oshawa, ON

Governor General's Academic Medal and graduation with honours

CORE COMPETENCIES

Languages

Python C Java JavaScript HTML CSS Bash

Development Tools, Frameworks & Environments

Git Django Unix/Linux Windows vim IntelliJ
SQL

PROJECTS

Wrappedify | Data Analysis

🔗 mhsohail56/wrappedify Visit Wrappedify 📄

- Developed a full-stack data analysis solution via Spotify's Web API, built using Python and Django's web framework
- Allows users to view up-to-date listening statistics such as top artists, songs, and genres, visualised with interactive graphics using D3.js
- Utilized Django's session framework and a PostgreSQL database to provide a personalized and persistent user experience
- Constructed AJAX workflows to allow asynchronous communication between the front and back end to improve user experience
- Implemented a dynamic progress bar using an asynchronous task queue (Celery) and a message broker (Redis) to improve the website's UX, allowing heavier, long-running tasks to be completed as background sub-processes
- Deployed on Heroku and maintained using scheduled jobs

Python HTML CSS JavaScript AJAX JQuery
D3.js Django Celery Redis Heroku PostgreSQL

Tower of Hanoi | Algorithm Visualiser

🔗 mhsohail56/hanoi

- A simple program which helps visualise a recursive solution to the well-known Tower of Hanoi game
- Implemented in Python with goals of fully moving to a HTML/CSS/JavaScript platform, to allow greater flexibility in visualisation

Python HTML

Schedule Optimization | Hackathon Project

🔗 mhsohail56/HACK22

- McHacks 9 submission. Developed a greedy algorithm to optimize a scheduling of trains by minimizing average passenger wait time, reducing by up to 20%
- Implemented as a web application in Python using Django and deployed on Heroku
- Visualisation of train schedule made using Java Swing

Python HTML CSS JavaScript/JQuery/AJAX
Django Heroku Java Swing

EXPERIENCE

Customer Experience Associate | Walmart Canada 📅 Jun 2021 – Aug 2021 📍 Oshawa, ON

- Provided personable and fulfilling customer service with a focus on customer satisfaction through effective communication
- Collaborated with and coordinated a well-organized, reliable, and efficient team, while building strong relationships with colleagues and customers

Math Tutor | O'Neill C.V.I. 📅 Oct 2019 – Apr 2020 📍 Oshawa, ON

- Offered weekly math help to students in grades 9-11
- Developed pedagogical skills along with effective and consistent organizational abilities