Muhammad Sohail

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EDUCATION

McGill University <div align="right">**September 2020 – Present**</div>
Bachelor of Science in Honours Computer Science <div align="right">*Montreal, Quebec*</div>

- 4.0 / 4.0 cGPA. Coursework in Algorithms and Data Structures, Software Systems and Computer Systems/Architecture. Dean's List 2020-2022.

EXPERIENCE

Pattern Labs <div align="right">**May 2022 – August 2022**</div>
Software Engineering Intern <div align="right">*Toronto, Ontario*</div>

- Designed and implemented scalable and modular backend services using Docker, Node, and Express, with a focus on test-driven development, future extensibility, and ease of adoption
- Set up robust metrics, dashboards, and instrumented monitoring for both our production API and web application using Datadog to assist with incident management and analytics. Set up trace propagation to associate user activity with API processes
- Automated resource syncing with 3rd party APIs up to 90% by developing asynchronous serverless applications using AWS Lambda, Cloudwatch, and Terraform.
- Constructed ETL pipelines and data dashboards using Fivetran, Looker, Snowflake, and dbt, reducing manual calculations by 100% and helping our organisation gain insights into payment metrics
- Created an SSH tunnel by using Terraform modules to provision an AWS EC2 instance, allowing secure and managed connections to our database in a VPC

PROJECTS

Wrappedify ⌗ | *Python, Django, D3.js, Redis, Celery, Heroku* <div align="right">**December 2021**</div>

- Developed a full-stack data analysis solution with Spotify's Web API, built using Python and Django's web framework
- Visualised users' listening statistics with interactive graphics using D3.js
- Used AJAX, Celery, and Redis to improve the website's UX by running asynchronous data analysis

Personal Site ⌗ | *React, TypeScript, Sass, Bash* <div align="right">**June 2022**</div>

- My personal site I created using TypeScript React and Sass, complete with a photo gallery for my photography, and a snake game. Used Google Analytics to monitor traffic

Spotify Dashboard ⌗ | *Python, PostgreSQL, Tableau Desktop* <div align="right">**July 2022**</div>

- Created a Tableau dashboard by using Python to clean, filter, and insert my listening data into a PostgreSQL database, allowing me to gain key insights about my listening behaviours

Thousand Words ⌗ | *TypeScript, React, Socket.io, Express, Docker, AWS* <div align="right">**August 2022**</div>

- Built a full-stack application using React and Express, allowing real-time photo sharing through Socket.io's WebSocket library, visualized over an interactive map generated using GeoJSON data
- Utilised Docker for development / deployment to Heroku and AWS S3 for content storage and delivery

TECHNICAL SKILLS

Languages: Python, Java, C, SQL (Postgres), JavaScript, TypeScript, HTML, CSS/Sass, Bash, MIPS Assembly
Frameworks: React, Node, Express, Django, Jest
Technologies: Git, Unix/Linux, Windows, AWS, Docker, Postman