Muhammad Sohail

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EDUCATION

McGill University   **Sep 2020 – Dec 2024**
Bachelor of Science in Honours Computer Science | **4.0 / 4.0 GPA**   *Montreal, Quebec*
- Dean's List (top 10%) 2020-2023. Coursework in Database Systems, Distributed Systems, Operating Systems, Artificial Intelligence, Compiler Design, and Probability/Statistics
- Development Coordinator at McHacks 11

EXPERIENCE

Autodesk   **May 2024 – Aug 2024**
Software Engineering Intern   *Montreal, Quebec*
- Developing scalable and extensible **Spring Boot** microservices to power cloud data models

McGill University   **Sep 2023 – Dec 2023**
Undergraduate Researcher | Publication Pending   *Montreal, Quebec*
- Refined an automated static analysis tool in **Java** to allow users to identify conventions in test suites
- Utilized multi-threading to reduce executions times by **10-50%** (about **100 hours**) across the codebase

Autodesk   **May 2023 – Aug 2023**
Software Engineering Intern   *Montreal, Quebec*
- Remodeled application load tests with **Scala**, **Gatling**, and **BlazeMeter** to drastically improve concurrency and throughput, leading to a **10x** gain in performance
- Coordinated and orchestrated a multi-team effort to seamlessly upgrade our internal data platform's Spring Boot framework, supporting stability and security
- Employed **Prometheus/Thanos**, **Grafana**, and **Kibana**, to pull and visualize key application metrics, increasing observability and allowing developers and stakeholders to monitor trends
- Leveraged **Apigee** proxy policies to introduce a tracing identifier across multiple services, allowing application logs to be unified across various observability tools and reducing developer overhead by **80%**

Coveo   **Jan 2023 – Apr 2023**
Data Engineering Intern   *Montreal, Quebec*
- Designed and developed a data monitoring system with **Snowflake**, **SQL**, and **Prefect** to ensure data quality and accuracy across multiple critical data sources and pipelines
- Revamped notification system using **Sentry**, **Python**, and **Terraform** to proactively identify and address data quality issues, reducing time to resolution by **30%**
- Promoted a culture of testing and storage/cost efficiency by implementing data purges and unit tests using **dbt**, ensuring data quality on high volume pipelines (over **150M** events daily)

Pattern/Borderless AI   **May 2022 – Aug 2022**
Software Engineering Intern   *Toronto, Ontario*
- Completely automated resource syncing with third-party APIs using AWS Lambdas, leading to **20+** hours saved daily

PROJECTS

Wrappedify ⓞ | *SvelteKit, Express, D3.js, Redis, BullMQ*
- Developed a full-stack listening analysis service with Spotify's Web API, built with **SvelteKit** and **Express**
- Ensured a user-friendly UX by using **BullMQ** and **Redis** for an asynchronous data processing architecture

Unix Shell, Thread Scheduling Library, FUSE File System ⓞ | *C, Docker, FUSE, pthreads*
- Wrote simple implementations of various OS services as a part of class projects. Used **FUSE** to create a mountable user-level file system and **pthreads** to build a user-level thread scheduler

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, JavaScript/TypeScript, Rust, Scala, Bash
Frameworks: React, Node, Express, dbt, Prefect, Django, Spring Boot, SvelteKit
Technologies: Git, Unix, Terraform, AWS, Docker, Snowflake, Jenkins, Postman