

SOBAN FARHAN

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SKILL STACK

- **Proficient:** Java, Python, .NET Core, Django, Docker, T-SQL, NoSQL, Git, Docker, Kubernetes, Jenkins, Elasticsearch
- **Familiar:** C#, TypeScript, React, NodeJS, Salesforce, CI/CD, AWS

PROFESSIONAL EXPERIENCES

Backend Developer *IBM Canada Ltd* **2024 – 2025**

- Contributed to the migration of lexical search service from a legacy 10+ stage custom pipeline to a standardized 3-stage pipeline, **reducing total build**, unit testing and deployment time from over **1 hour to 30 min**.
- Implemented a **multithreaded Gradle approach** for the new pipeline's unit test suite, cutting execution time from **20 minutes to under 9 minutes to accelerate developer feedback** and **speed up code check-ins**.
- Engineered and managed the complete **FVT suites across Dev, QA, and Prod environments**, maintained full ownership of environmental validation and integration steps since inception.
- Collaborated and **facilitated the onboarding of our LLM semantic service** from a cloud sidecar model to its own **dedicated microservice**, enabling its utilization as a standalone add-on for on-premise cluster releases.
- Refactored **20+ legacy FVT files** and authored **100+** new scenarios into a consistent pattern, providing a more comprehensive validation for **lexical and semantic search** logic.
- Helped implement a batch multi-search feature, allowing up to 30 queries in a single API call **reducing API calls by 97%, from 1000 to 30**, improving efficiency and integrating seamlessly with internal microservices.
- Engineered and took ownership of a **centralized health-check monitoring service** that performed real-time API heartbeats across microservices utilizing lexical search to **ensuring 24/7 observability** and service degradation.
- Optimized lexical search queries, **reducing search time by 20%** through the deduplication of semantic synonyms and enhancing overall application performance.
- Improved semantic model query times by **60% through the implementation of LRU**, Redis and Elasticsearch caching, **reducing latency and enhancing real-time search** capabilities.

Software Developer *Re:Sound Music Licensing* **2021 – 2023**

- Expedited performance analysis for an in-house **.NET REST API (E10)** by leading a test sync. Created 50,000 users and 300,000 invoices to **outline pain points regarding slow response time and high memory usage**.
- Improved **E10** performance by switching from Classes to Structs and replacing ORM usage with direct calls to **stored procedures**. These changes had a **60% - 70% reduction in overall processing time from 15s requests to 5s**.
- Played a **pivotal role** in our new application called **something_funky**, which consisted of finding discrepancies in data between in-house **ALLIANT** and **Crescendo** databases. The solution was built using **Python** to help with manual review and effectively reduce manual efforts by **30% - 40%** by finding discrepancy patterns.
- Expanded **something_funky** infrastructure by creating **CI/CD** pipeline. This initiative was to expedite **builds, unit-testing** and **newer releases** to an expanding list of feature requests alongside performance optimization.

AI Research Assistant *AI HUB* **2018 – 2020**

- Applied my knowledge and understanding of **Python, Flask**, and **Docker** to create and maintain **REST API**. The project concluded with a setup to allow communication between the **API** and prototype **regression models**.
- Created various models ranging from classifier, logistic, neural network, etc., and afterward optimized model performance by tweaking **hyper-parameters**.
- Improved data quality by **cleaning** and **normalizing**, and afterward stored data in **NoSQL (MongoDB)** to keep records of historical and future entries.
- Contributed to daily **SCRUM** meetings while **mentoring new researchers** to highlight collaborative abilities and potential for **leadership**.

EDUCATION

- **Ontario Tech University**, Bachelor of science in Computer Science **2023 - Present**
- **Durham College**, Advance Diploma in Computer Programming and Analysis **2017 - 2020**