Aarya Shah

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TECHNICAL SKILLS

Languages: Python, SQL, R, Java, JavaScript, React, Node.js, C++, HTML/CSS, MATLAB, Scala
Tools: Azure, GCP, AWS, Snowflake, Tableau, PowerBI, Git, Airflow, Kubernetes, Docker, Linux
Frameworks: PyTorch, TensorFlow, Scikit-learn, XGBoost, Langchain, HuggingFace, Kafka, Hadoop, Spark, DBT

EDUCATION

University of Waterloo   September 2021 – December 2025
Bachelor of Mathematics in Statistics & Computer Science   *Waterloo, ON*
- **Relevant Coursework:** Neural Networks, Data Types & Structures, Linear Models, Stochastic Processes
- **Extracurricular activities:** Rocketry Club, ActSci Club, Data Science Club, UWAFT

EXPERIENCE

Health Canada   September 2024 – December 2024
Data Scientist Intern   *Toronto, ON*
- Integrated active training & fine-tuning to **10+ multi-agent RAG LLMs** using HuggingFace Tranformers
- Enforced a **feature store in GCP** that improved machine learning model scalability & performance by over **15%**
- Enhanced security for docker containers to perform safe development & data operations in **Python & Spark**

Gore Mutual Insurance   January 2024 – April 2024
Data Science & Engineering Intern   *Cambridge, ON*
- Developed an **NLP model** to assess query complexities saving hosting costs by **$500,000+** in Databricks
- Deployed **20+ data pipelines (ETL) & 10+ CI/CD workflows** to Azure using Python, Spark, SQL & Git
- Created 5+ machine learning models using **neural networks & deep learning** to enhance pricing models by **6%**

IBM   July 2023 – August 2023
Machine Learning Engineer Intern   *Toronto, ON*
- Conducted **prompt engineering** and training on IBM watsonx GEN AI models to enhance human interaction
- Implemented **full stack development** in Git, C++ & React by deploying UI/UX & back-end into Docker
- Assessed design variations of pre-existing LLMs in fraud detection & Q/A bots which **increased 3% accuracy**

RBC Insurance   May 2023 – August 2023
Data Engineer Intern   *Mississauga, ON*
- Identified various methods to transition data foundation from **DB2** to **Snowflake** to increase user flexibility
- Accelerated data pipelines by validating 25+ data sources in **Data Lake, Kafka, Hadoop (Hive) & SQL**
- Led the shift of converting legacy **ETL scheduling scripts to Airflow** which resulted in better customizability

UWAFT   September 2022 - December 2022
Software Engineer Intern   *Waterloo, ON*
- Established active integration in website development using **Python & Scala** to introduce a new design/interface
- Managed the infotainment software application which received a **98%** satisfaction rate amongst **1,000+ users**
- Conducted A/B testing to enhance experience using **React** to boost the carousel click-through rate by **25%**

RBC Insurance   May 2022 – August 2022
Data Analyst Intern   *Mississauga, ON*
- Performed **regression modelling** & statistical analysis in **R & Excel** using vlookup, pivot tables & macros/VBA
- Designed **15+ Tableau & PowerBI Dashboards** & wrote **20+ SQL queries** to influence business decisions

PROJECTS

Policy Coverage Q/A chatbot
- Applied RAG for Q/A chatbot regarding policy documents with **Falcon-40b LLM, Langchain** & **HuggingFace**

Driver Drowsiness Detection
- Constructed a neural network to **process images** (computer vision) & detect drowsiness with correctness of **92%**

Flight Path Optimization
- Built an **optimization algorithm** to find the most fuel efficient, cost effective, and time-saving flight path