Aarya Shah

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TECHNICAL SKILLS

Languages: Python, SQL, R, Java, JavaScript, React, Node.js, C, C++, HTML/CSS, Scala

Tools: Azure, GCP, AWS, Snowflake, Excel, Tableau, PowerBI, Git, Airflow, DLT, Kubernetes, Docker

Frameworks: PyTorch, TensorFlow, XGBoost, Langchain, Kafka, Hadoop, Spark, DBT

EDUCATION

University of Waterloo

September 2021 – April 2026

Bachelor of Mathematics in Statistics & Computer Science

Waterloo, ON

• Relevant Coursework: Neural Networks, Data Types & Structures, Linear Models, Stochastic Processes

Experience

Globys

April 2025 - Present

Machine Learning Engineer Intern

Seattle, WA

- Integrated active training & fine-tuning to 10+ multi-agent RAG LLMs using Langchain/OpenAI embeddings
- Managed vision transformers models in Python to verify customer info with 98% satisfaction from 8+ clients
- Utilized CosmosDB (Azure) indexing in C++ REST APIs to optimize backend & reduce query latency by 70%

Health Canada

September 2024 – December 2024

Data Scientist Intern

Toronto, ON

- Enforced a feature store in GCP that improved machine learning model scalability & performance by over 15%
- Established time series models such as LSTM, Prophet & XGBoost for forecasting projects with 97%+ accuracy
- Created 5+ deep learning projects using neural networks (CNN/RNNs) for projects in image/text domains

Gore Mutual Insurance

January 2024 – April 2024

Data Engineer Intern

Cambridge, ON

- Implemented 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
- Integrated a Kafka-based ingestion system reducing data latency by 40%, feeding 10+ DLT pipelines

Data Engineer Intern

May 2023 – August 2023 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

IBM

RBC

July 2023 – August 2023

Machine Learning Intern

New York, NY

Mississauga, ON

- Conducted **prompt tuning & prompt engineering** on watsonx **GEN AI** models to enhance human interaction
- Developed file processors in Git, C++ & Docker which improved RAG model performance for 10+ file types
- Assessed design variations of pre-existing LLMs in fraud detection & Q/A bots which increased 3% accuracy

RBC Data Analyst Intern

May 2022 – August 2022

- Performed regression modelling & statistical analysis in R, Python & Excel using macros/VBA
- Designed 15+ Tableau & PowerBI Dashboards & wrote 20+ SQL queries to influence business decisions
- Performed regression and logistic modeling & statistical analysis in R, Python & Excel using macros/VBA

Projects

Policy Q/A chatbot (10000+ users) Ω | Python, Angular, Falcon-40b LLM, Langchain, HuggingFace

• Applied RAG for Q/A chatbot with ability to give quotes, check insurance coverage, and give tailored advice

Pharmaceutical (iOS) App (4000+ users) \(\mathbf{O}\) | Node.js, React, HTML/CSS, Python, AWS, Nvidia LLMs

Engineered robust app using ML to read prescriptions, check coverage, corresponding price and availability

Driver Drowsiness Detection (1500+ users) \square | Python, CNN, Computer Vision (OpenCV)

• Constructed a system that processes pupil images & attention span to detect drowsiness with correctness of 92%

Tensorflow Enhancements (7) | C++, Python

• Enhanced features such as compiling libtensorflowlite with SVE or restoring training capability for LiteRT models

Flight Path Optimization (7) | Python, SQL, PostgreSQL, Machine Learning

• Built an optimization algorithm using unsupervised learning methods to find most fuel efficient flight path