Aarya Shah

647-767-8243 | a268shah@uwaterloo.ca | linkedin/aarya | Study Term Completed: 4A

Technical Skills

Languages: Python, SQL, R, Java, JavaScript, React, Node.js, C, C++, HTML/CSS, MATLAB, Scala, Streamlit
Tools: Azure, GCP, AWS, Snowflake, Tableau, PowerBI, Git, Kubernetes, Docker, Linux, MongoDB, PostgreSQL
Frameworks: PyTorch, TensorFlow, Keras, Sklearn, XGBoost, Langchain, HuggingFace, 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 **7+ multi-agent RAG LLMs** using Langchain/OpenAI embeddings
- Researched predictive models using Python (**pytorch**) for customer churn 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**
- Conducted A/B testing to enhance experience using **React** to boost the carousel click-through rate by **25%**

Gore Mutual Insurance January 2024 – April 2024
Data Science & Engineering Intern *Cambridge, ON*
- Implemented an **NLP model** to assess query complexities saving hosting costs by **$500,000+** in Databricks
- Created **5+ deep learning** projects using **neural networks** (CNN/RNNs) for projects in image/text domains
- Deployed **20+ data pipelines (ETL) & 10+ CI/CD workflows** to **Azure** using Python, Spark, SQL & Git

IBM July 2023 – August 2023
Machine Learning Engineer Intern *New York, NY*
- Developed file processors in **Git, C++ & Docker** which improved RAG model performance for 10+ file types
- Conducted **prompt tuning & prompt engineering** on watsonx **GEN AI** models to enhance human interaction
- Assessed design variations of pre-existing LLMs in fraud detection & Q/A bots which **increased 3% accuracy**

RBC 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

RBC May 2022 – August 2022
Data Analyst (Software) Intern *Mississauga, ON*
- Designed a caching layer with **PostgreSQL** optimizing load times reducing latency for **4,000,000+ users**
- 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) | 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) | 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) | Python, CNN, Computer Vision (OpenCV)
- Constructed a system that processes pupil images & attention span to detect drowsiness with correctness of **92%**

Tensorflow Enhancements | C++, Python
- Enhanced features such as compiling libtensorflowlite with SVE or restoring training capability for LiteRT models

Flight Path Optimization | Python, SQL, PostgreSQL, Machine Learning
- Built an optimization algorithm using unsupervised learning methods to find most fuel efficient flight path