

Aarya Shah

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TECHNICAL SKILLS

Languages: Python, SQL, R, Java, JavaScript, TypeScript, C++, C#, Scala
Tools: Azure, GCP, AWS, Snowflake, Git, Kubernetes, Docker, PostgreSQL, NoSQL, MongoDB
Frameworks: NodeJS, React, PyTorch, TensorFlow, Langchain, Kafka, Hadoop, Spark

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
Software Engineer Intern (Machine Learning) Seattle, WA

- Integrated active training & fine-tuning to **10+ multi-agent RAG LLMs** using Langchain/OpenAI embeddings
- Utilized indexing for NoSQL (Azure) in **C# REST APIs** to optimize backend & reduce query latency by **70%**
- Conducted A/B testing to enhance experience using **React** to boost the carousel click-through rate by **20%**

Health Canada September 2024 – December 2024
Data Science Intern Toronto, 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
- Established time series models such as LSTM, Prophet & XGBoost for forecasting projects with **97%+ accuracy**

IBM July 2023 – August 2023
Software Engineer Intern (Machine Learning) New York, ON

- 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 **Azure** to increase user flexibility
- Accelerated data pipelines by validating 25+ data sources in **Data Lake, Kafka, Hadoop (Hive) & SQL**
- Deployed **20+ data pipelines (ETL) & 10+ CI/CD workflows** to **Azure** using Python, Spark, SQL & Git

RBC May 2022 – August 2022
Software Engineer Intern Mississauga, ON

- Designed a caching layer with **PostgreSQL** optimizing load times reducing latency for **4,000,000+ users**
- Built 25+ REST API and backend features using **TypeScript** and **MongoDB** serving 2 million requests a month

UWAFIT January 2022 – April 2022
Software Engineer Intern Mississauga, ON

- Managed the infotainment software application which received a **98%** satisfaction rate amongst **1,000+ users**
- Refactored back-end services using **Python**, optimizing API response times and enhancing backend scalability

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

Tensorflow Development 🤖 | C++, Python

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

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%**

Flight Path Optimization 🤖 | Python, SQL, PostgreSQL, Machine Learning

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