

Aarya Shah

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TECHNICAL SKILLS

Languages: Python, SQL, R, Java, JavaScript, TypeScript, C++, C#, Swift
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

- Utilized indexing for NoSQL (Azure) in C# REST APIs to optimize backend & reduce query latency by 70%
- Integrated active training & fine-tuning to 10+ multi-agent RAG LLMs using Langchain/OpenAI embeddings
- Conducted A/B testing enhancing experience using React/Javascript to boost 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 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
- Orchestrated RAG pipeline using Langchain with Pinecone/FAISS vector stores cutting response times by 60%

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
- Deployed 20+ data pipelines (ETL) & 10+ CI/CD workflows to Azure using Python, Spark & 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

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

- Refactored back-end services using Python, optimizing API response times and enhancing backend scalability
- Managed Swift-based iOS infotainment software application, achieving 98% satisfaction rate amongst 1,000+ users

PROJECTS

Policy Q/A chatbot (10000+ users) 🤖 | Python, React Native, NextJS, 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) 🤖 | NodeJS, 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