Aleem Khan, PMP

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EDUCATION

University of Waterloo **Sep 2023 – Aug 2024**
MMSc. Master of Management Sciences (Engineering) *Waterloo, ON, Canada*
Specialization: Data Analytics and Machine Learning
Coursework: Big Data Analytics, Quantitative Data Analytics, Operational Research, Consulting

TECHNICAL SKILLS

Programming Languages: C++, Python, SQL, R, DAX, VBA
Frameworks & Libraries: PyTorch, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, PySpark, LangGraph
Data Visualization: Power BI, Looker, Tableau
Cloud Technologies: Snowflake, GCP, Azure, BigQuery, Synapse, DBT, Apache Airflow, Apache Spark
Competencies: Agile, Waterfall, Project Management, Stakeholder Engagement, Relational Databases, Data Engineering, Vector Databases, Data Analysis, Applied Machine Learning, Cybersecurity, Agentic AI, NLP, CI/CD, LLMs
Other: Microsoft Office 365, Word, Excel, PowerPoint, DataiKU, Git, GitHub, Docker, Salesforce.com, Cursor

WORK EXPERIENCE

Data Scientist **Dec 2024 – Aug 2025**
Guardian Group (life & health insurance)

- Deployed **ML models** on the Google Cloud Platform (**GCP**) to detect fraud in the life and health insurance industries
- Delivered and maintained **business intelligence (BI)** dashboards in **Power BI** for tracking business profitability
- Implemented scalable **data pipelines** using **Snowflake** and **SQL** to transform over **1 billion** customer transactions into analytics ready datasets for financial reporting
- Conducted **business acceptance testing** (BAT) of all BI solutions and ensured alignment with user requirements
- Integrated **LLMs** into data pipelines to clean and format free-form text data, improving data accuracy

Data Analyst **Aug 2021 – Aug 2023**
Village Book Builders Inc. (EdTech startup)

- Performed **A/B testing** on marketing designs to increase user engagement and drive revenue growth
- Built **ETL pipelines** with **Python** and **Airflow** to automate daily customer data processing jobs
- Collaborated with stakeholders to gather requirements and **created technical specifications** for project development
- Created business intelligence visualizations in **Looker**, outlining KPIs in clear, non-technical formats and presenting actionable business insights to the executive team
- Implemented the company's **cloud-based data infrastructure**, incorporating **PostgreSQL** databases to securely store and manage customer information

PROJECTS

Power Generation Forecasting AI Agent (GitHub) | *Python, Apache Airflow, LangGraph, Llama 3.1*

- Built an autonomous AI agent using **LangGraph** and **Llama 3.1** to forecast Ontario electricity demand
- Developed 15+ tools for **time series forecasting** (Prophet/ARIMA) and integrated PostgreSQL for real-time analysis

Wildfire Prediction (GitHub) | *Python, PyTorch, Scikit-Learn*

- Developed **spatiotemporal deep learning models** (3D U-Net, LSTM) to predict wildfire spread with **96.16%** precision using 34 environmental variables from Mediterranean wildfire datasets
- Built end-to-end **ML pipeline** with feature engineering, model training, and real-time visualization of wildfire predictions

Ontario Grid Optimization (GitHub) | *Python, Pyomo,* HiGHS, NumPy, Matplotlib

- Optimized Ontario's power plant mix to meet 75% growth while **minimizing costs and emissions** through 2045
- Built **multi-objective optimization model** using Pyomo and HiGHS solver to generate cost-emissions trade-offs

CERTIFICATIONS

Project Management Professional (PMP) **Jul 2024**
Technology Governance and Policy **Aug 2024**
Machine Learning in Enterprise **Mar 2025**