Adam Mohamed

Quantitative Analyst & Analytics Engineer

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Data Analyst & Analytics Engineer with 4+ years' experience designing forecasting systems, optimization tools, and modular BI platforms across manufacturing, utilities, and FMCG. Specialize in dimensional modeling, time-series infrastructure, and anomaly detection using Python, SQL, DAX, and Databricks. Skilled in transforming operational data into reusable analytics products backed by CI/CD pipelines and cloud-native architecture. Currently completing a Master of Computer Science to deepen capabilities in distributed systems and ML-driven analytics tooling.

Technical Skills

Data Modeling & Analytics	Dimensional Modeling, Semantic Layer Design, Forecasting, A/B Testing, Anomaly Detection, Linear Regression
Programming & Tools	Python (pandas, numpy, matplotlib),Java, Javascript,SQL, Git, PowerShell, VS Code, Jupyter, CI/CD
BI Platforms	Power BI (DAX, Power Query, RLS/OLS), Tableau, Streamlit
Data Engineering	ETL Pipelines, Azure Data Factory, Databricks, Snowflake, Star/Snowflake Schema, Time-Series Infrastructure
Cloud Platforms	Microsoft Azure (SQL, DevOps, Data Factory), Docker

Professional Experience

Data Analyst

Jan 2024 – Present **Data Analyst**, *Downer EDI*, Sydney

- Developed CI/CD-enabled BI dashboards using Power BI, Streamlit, SQL, and Python, reducing manual effort by 50%
- Built anomaly detection workflows for ticketing metrics using statistical modeling
- Designed relational schemas in Oracle to improve query performance and consistency
- Led Git-based version control implementation for BI assets to improve governance and team collaboration

Supply Chain Data Analyst

Jul 2022 – Dec 2023 **Supply Chain Data Analyst**, *Snack Brands Australia*, Sydney

- Migrated planning from legacy MS Access to Power BI, boosting data capability by 80%
- Transformed raw SCADA sensor streams into a dimensional data model for Power BI ingestion, enabling real-time KPI tracking and historical anomaly detection across production lines
- Developed Azure Data Factory pipelines and Snowflake schemas for cross-functional reporting

- Applied A/B testing and linear programming to cut operational costs by 25%
- Led inventory forecasting with statistical modeling, reducing holding costs by 15%
- Built real-time KPI dashboards with anomaly detection for supply chain monitoring

Operations Analyst

Aug 2021 – Jul 2022 — **Operations Analyst**, *Rode Microphones*, Sydney

- Developed real-time dashboards to track production KPIs and improve throughput visibility
- Built fact and dimension tables to model production throughput, machine downtime, and shift performance across Rode's assembly operations
- Identified process bottlenecks through statistical analysis, increasing throughput by 25%
- Automated reporting workflows, saving 10+ hours of manual effort per week
- Conducted A/B testing on packaging processes, improving labor efficiency by 70%

Freelance Projects & Portfolio

Freelance BI Projects — Delivered custom BI dashboards and analytics apps for manufacturing clients using Power BI, Streamlit, and Python. The projects include real-time OEE tracking, labor optimization and predictive maintenance tools. Other projects can be found here - *Portfolio:* Portfolio.io

Education

Current — **Master of Computer Science (Part-time)**, *University of Sydney*
Specialisation in Data Science & AI, Algorithms and Theory
Relevant coursework: Advanced Algorithms, Big Data Analytics, Machine Learning, Parallel Programming

2024 — **Graduate Certificate in Computer Science**, *Monash University*
WAM: 84%
Core subjects: Programming, Data Structures, Databases, Systems Architecture

2021 — **Master of Commerce**, *University of Sydney*
Specialisation in Supply Chain & Operations Management
Focus: Forecasting, Optimization, Predictive Modelling, Risk Analytics

2017 — **Bachelor of Science (Hons) in Biological Sciences**, *University of Leicester*
First Class Honours
Key subjects: Molecular Biology, Genetics, Statistical Analysis, Research Methods

Certifications

Microsoft Certified: Power BI Data Analyst Associate (PL-300)

Databricks Lakehouse Fundamentals

HackerRank SQL (Advanced)

HackerRank SQL (Intermediate)