

NITAI BABOOLAL

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ABOUT ME

Driven by a passion for optimizing cloud costs and delivering strategic insights, I am a seasoned Cloud FinOps Analyst with an Analytics Engineering secondment and a Postgraduate Diploma in Industrial Engineering (Data Science) from Stellenbosch University. Throughout my career, I have harnessed advanced analytics, machine learning, and cloud computing to architect and implement cost-effective solutions across AWS, GCP, and Azure environments. At The Shoprite Group, I developed and deployed predictive cost-forecasting models and automated anomaly-detection pipelines using AWS Lambda, Cost Explorer, EventBridge, and SES, resulting in a proactive FinOps framework that improved budget oversight and delivered measurable savings. My tenure at ShopriteX involved leading cross-account Terraform migrations and refactoring Airflow DAGs and AWS Glue jobs, ensuring seamless infrastructure transitions.

I complement my practical experience with robust quantitative research skills as the Chief Quantitative Researcher at NPro Technology, where I design and back-test trading strategies in commodities and foreign-exchange markets. My technical toolkit includes Python, SQL, BigQuery, Athena, PowerBI, and industry-standard machine-learning libraries. Adept at translating complex data findings into actionable business recommendations, I excel in collaborating with multidisciplinary teams to drive operational excellence, enhance financial performance, and align technology solutions with organizational goals. I hold 15 industry certifications.

SKILLS AND ABILITIES

- **Machine Learning** (RandomForests, GradientBoost, Ensemble techniques)
- **Data Analytics** (Automated Data ETL and Visualization)
- **Software Development** (Web Development)
- **Software Engineering and System Automation** (Cost anomaly detection)
- **Quantitative Analytics** (Trading)
- **Cloud Computing** (AWS, GCP, Azure)
- **Project Management**
- **Cyber Security**
- **Agile Methodologies**
- **Optimization**

EXPERIENCE

Analytics Engineer – ShopriteX

April 2025 - Present

- **Cross-Account Terraform Migration:** Spearheaded the migration of Terraform-managed AWS resources from one account to another.

- Pipeline & Configuration Cutover: Refactored Airflow DAGs and AWS Glue jobs for the target account

Cloud Financial Operations Analyst – The Shoprite Group of Companies March 2024 - Present

- Implemented Machine Learning Models to forecast business unit costs.
- Engineered AWS Lambda solution to query AWS Cost Explorer for cost anomaly detection triggered by Event Bridge and sent using SES.
- Developed and deployed custom FinOps automation tools using AWS Lambda for idle instance detection, helping reduce unnecessary compute costs.
- Leveraged BigQuery to automate early-warning cost detection, enabling proactive financial interventions and improved budget oversight.
- Executed ad-hoc SQL queries via AWS Athena/Big Query to extract actionable insights into team-specific cloud spending patterns.
- Built AWS Cost Explorer reports to reduce time taken for Data and Analytics cost reporting.
- Monitored daily cloud expenditures and prepared comprehensive weekly and monthly reports for senior management review.
- Analysed cloud usage data to collate, prioritize, and recommend optimization strategies, identifying significant potential savings.
- Provided expert guidance on cloud cost optimization strategies—including rightsizing and power scheduling—to drive cost reduction initiatives.
- Collaborated closely with Engineering teams to implement best practices and actionable cost optimization recommendations.
- Prepared detailed quotations for AWS system modifications, supporting informed decision-making and effective budget management.

Chief Quantitative researcher, engineer & founder – NPro Technology September 2024 - Present

- Discovering Alpha opportunities within Commodities and Foreign Exchange markets.
- Creating trading strategies based on Risk Management profiles.
- Development and Back Testing of predictive models.

Junior Financial Operations Analyst - OneNebula January 2023 – Feb 2024

- Analysed cloud expense data across both AWS and Azure environments to uncover actionable cost-saving opportunities.
- Developed intuitive PowerBI dashboards tailored to client specifications for enhanced visibility into cloud spending.
- Delivered clear, data-driven presentations of key findings and cost optimization strategies to clients.
- Utilized SQL and Python scripts to find abnormalities within the data.
- Provided strategic rightsizing recommendations to optimize resource allocation and reduce unnecessary cloud spending.

Data Analyst March 2022 – April 2022

- Conducted analysis on large data sets to identify patterns, trends, emerging behaviors, etc.
- Applied advanced statistical data analysis methods.
- Collaborated with members of the department and internal customers in ongoing decisions regarding data collections, data analysis and methodology.
- Gathered data from multiple sources and cohesively compile and create automated dashboards using SPSS.

- Compared results from one group of people with results from one or more other groups (t-test and ANOVA).
- Calculating correlation coefficient for finding relationships in the data.

EDUCATION

PGDip (Eng) Industrial Engineering (Data Science)

2024 - 2025

Stellenbosch University

- Applied Machine Learning
- Optimisation
- Big Data
- Data Analytics

Bachelor of Information and communications Technology

2022

Durban University of Technology

- 18 Distinctions
- 77% & 75% average in second and third year
- BankSeta bursary

CERTIFICATES

- **AWS** Certified Machine Learning Specialty
- **IBM** Advanced Deep Learning Specialist
- **AWS** Certified Cloud Practitioner
- **IBM** Deep Learning with PyTorch
- **IBM** Deep Learning with Keras and Tensorflow
- **IBM** Introduction to Deep Learning and Neural Networks with Keras
- **Microsoft** Certified Azure Fundamentals
- **Microsoft** Certified: Security Compliance and Identity Fundamentals
- **IBM** DevOps, Cloud, and Agile Foundations
- **University of California:** San Diego Algorithmic Toolbox