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 Developmen**t (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