

NITAI BABOOLAL

Integration Specialist | Cloud FinOps Analyst | Analytics Engineer

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ABOUT ME

Integration Specialist at Standard Bank Group, Cloud FinOps Analyst and Analytics Engineer with a Postgraduate Diploma in Industrial Engineering (Data Science) from Stellenbosch University. I use advanced analytics, machine learning and cloud computing to build robust solutions across enterprise and multi-cloud environments (AWS, GCP, Azure): integration architecture and event management at Standard Bank; cost-forecasting ML models, automated anomaly detection and generative AI agents at The Shoprite Group; and cross-account Terraform migrations and Airflow/AWS Glue refactoring at ShopriteX. As Chief Quantitative Researcher at NPro Technology I design and back-test trading strategies in commodities and foreign-exchange markets. I turn complex data findings into actionable recommendations with multidisciplinary teams.

SKILLS AND ABILITIES

- **Machine Learning** (RandomForests, GradientBoost, Ensemble techniques)
- **Data Analytics** (Automated Data ETL and Visualization)
- **Software Development** (Web Development)
- **Software Engineering & System Automation** (Cost anomaly detection)
- **Quantitative Analytics** (Trading)
- **Cloud Computing** (AWS, GCP, Azure)
- **Enterprise Integration** (IBM DataPower, ACE/IIB, IBM MQ, event management)
- **Project Management**
- **Cyber Security**
- **Agile Methodologies**
- **Optimisation**

Toolkit: Python, SQL, BigQuery, Athena, Power BI, AWS Lambda, Cost Explorer, Terraform, Airflow, AWS Glue, IBM DataPower, IBM MQ, Nagios, EventBridge, Amazon SES, SPSS

EXPERIENCE

Integration Specialist – Standard Bank Group

August 2026 – Present

- Decommission Nagios host systems.
- Document IBM integration architecture: DataPower, with as-is reviews of ACE/IIB and MQ.
- Manage events by monitoring dashboards and system environments, keeping key applications proactively available to customers.
- Diagnose, resolve, document and escalate system incidents through to resolution.
- Communicate system issues that affect the quality or reliability of supported systems to clients, peers and management.
- Run daily, weekly, monthly and year-on-year trend analysis to identify hot spots.

Cloud FinOps Analyst – The Shoprite Group of Companies

March 2024 – August 2026

- Architected, engineered and secured a Slack AI agent that answers AWS cost queries using Amazon Q Developer, Claude and the AWS Pricing API.
- Implemented machine learning models that forecast business-unit costs, accounting for seasonality, trend and noise.
- Engineered an AWS Lambda solution for cost anomaly detection that queries AWS Cost Explorer, is triggered by EventBridge and sends alerts via SES.
- Developed and deployed automated AWS Lambda FinOps tools that detect idle instances, helping reduce unnecessary compute costs.
- Automated early-warning cost detection in BigQuery, enabling proactive financial interventions and improved budget oversight.

- Ran ad-hoc SQL queries in AWS Athena to surface actionable insights into team-level cloud spending patterns.
- Managed the monthly GCP cloud financial reporting process in BigQuery.
- Monitored daily cloud spend and produced weekly and monthly reports, including weekly cost tracking for the Head of Engineering (Shoprite Technology).
- Built AWS Cost Explorer reports to cut the time taken for Data and Analytics cost reporting.
- Analysed cloud usage data to prioritise and recommend optimisation strategies, identifying significant potential savings.
- Advised Engineering teams on cost optimisation strategies such as rightsizing and power scheduling, and worked with them to implement best practices and recommendations.
- Prepared detailed quotations for AWS system changes, supporting informed decision-making and effective budget management.

Analytics Engineer – ShopriteX

May 2025 – October 2025

- Cross-account Terraform migration: led the migration of Terraform-managed AWS resources from one AWS account to another.
- Pipeline and configuration cutover: refactored Airflow DAGs and AWS Glue jobs for the target account.

Chief Quantitative Researcher, Engineer & Founder – NPro Technology

September 2024 – Present

- Discover alpha opportunities in commodities and foreign exchange markets.
- Design trading strategies around defined risk management profiles.
- Develop and backtest predictive models.

Junior FinOps Analyst – 1Nebula

January 2023 – March 2024

- Developed and maintained automated Power BI dashboards giving enterprise clients visibility of AWS and Azure costs.
- Built weekly and monthly FinOps reports highlighting anomalies, top spend areas, savings opportunities and purchase plan coverage.
- Presented insights in bi-weekly client review sessions, aligning on cloud spend trends and recommending optimisation actions.
- Wrote SQL queries to identify idle, unattached and over-provisioned resources, and supported AI model testing for anomaly detection pilots.
- Helped implement a savings tracker that monitors realised and projected savings across multiple accounts.
- Investigated high-cost services such as data transfer, backup storage and orphaned resources in depth.
- Provided guidance on cloud cost management best practices, including rightsizing, scheduling and reserved instance coverage.

Data Analyst – Brainnest

March 2022 – April 2022

- Analysed large datasets to identify patterns, trends and emerging behaviours.
- Applied advanced statistical methods, including t-tests and ANOVA to compare groups and correlation coefficients to find relationships in the data.
- Gathered data from multiple sources and compiled it into automated SPSS dashboards.
- Collaborated with department members and internal customers on ongoing decisions about data collection, analysis and methodology.

EDUCATION

MSc Financial Engineering

2027 – 2028

WorldQuant University

- Machine Learning in Finance · Financial Econometrics · Risk Management · Stochastic Modelling · Portfolio Management

PGDip (Eng) Industrial Engineering (Data Science)

Jan 2024 – Dec 2026

Stellenbosch University

- Data Science · Applied Machine Learning · Optimisation · Big Data · Data Analytics · Industrial Management · Project Management

Bachelor of Information and Communications Technology (ICT)

2019 – Dec 2022

Durban University of Technology

- 17 Distinctions · 77% & 75% average in second and third year · BankSeta Bursary

- Electronics · Digital Systems · Mathematics · Electrical Engineering

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
- **UC San Diego** Algorithmic Toolbox

PROJECTS

- **FinPro** – personal-finance ledger and dashboard: FNB and Standard Bank statements parsed, reconciled and categorised: [live app](#)
- **FinOps Radar** – cloud FinOps intelligence aggregator: [live app](#)
- **NRECON** – cyber reconnaissance & OSINT platform with real-time 3D tracking: [live app](#)
- **FinBridge** – real-time stock analytics: [live app](#)
- **BioLinkify** – personalised link-in-bio page builder: biolinkify.com
- **Astro World** – retro space shooter game: nitai.pro/astroworld
- **Weather App** – real-time forecasts for any city: nitai.pro/weather
- **Hare Krishna Richards Bay** – community website for the ISKCON centre: krsnarbay.co.za
- **nitai.pro (v2)** – portfolio, case studies and blog: nitai.pro