Baloyi Thabang Bongani Junior

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Professional Summary

Recent BSc (Honours) graduate in Statistics and Data Science with a minor in Actuarial Science from the University of Cape Town, equipped to contribute across Data Science, Machine Learning Engineering, and Data Engineering roles. Proficient in Python, SQL, PySpark, Power BI, Tableau, and Excel, with experience designing **end-to-end data workflows**, from data ingestion and cleaning to modelling, automation, and insight delivery.

Hands-on experience developing predictive and machine learning models including Logistic Regression, KNN, Random Forests, Classification Trees, GBMs, and XGBoost, as well as **Neural Networks using TensorFlow and PyTorch**. Built automated workflows using **n8n** and **Make.com** to streamline data collection, preprocessing, reporting, and monitoring. Strong SQL experience for querying, feature engineering, and managing large datasets in analytics and modelling environments.

Completed an Honours thesis titled **"Mean-Variance Hedging with Neural Networks using Vector AutoRegression Models as the Underlying Sample Path Generator"**, applying econometrics, neural networks, optimisation, and stochastic finance to evaluate hedging strategies in incomplete markets.

I maintain an **Advanced Quantitative Engineering & AI Portfolio**, featuring real-world projects across finance, insurance, health, telecoms, retail, public sector, energy, and technology. These projects demonstrate practical capability in **data engineering (Python + SQL + PySpark), modelling, ML, analytics dashboards, automation, and deployment thinking**.

Motivated to contribute in a data-driven environment as a **Data Scientist, Machine Learning Engineer, or Data Engineer**, bringing strong analytical thinking, engineering discipline, business awareness, and the ability to turn complex data into real impact. Open to relocation anywhere in South Africa.

Skills

Business Intelligence & Data Visualization
Power BI | Tableau | Microsoft Excel (Power Query, Pivot Tables, Dashboards) | Data Storytelling | KPI Reporting

Programming & Data Science
Python (TensorFlow, NumPy, pandas, scikit-learn, matplotlib) | R | SQL | MATLAB | STATA | Java | VBA | LaTeX

Statistical & Analytical Expertise
Statistical Modelling | Machine Learning | Time Series Analysis | Multivariate Analysis | Bayesian Analysis | Portfolio Theory | Data Cleaning & Transformation | Hypothesis Testing | Data Visualization | Data Reporting

Professional & Technical Tools
Microsoft Office Suite | GitHub | Jupyter Notebook | Visual Studio Code | Google Workspace

Certifications & Development

- **Create Machine Learning Models in Microsoft Azure** — *Microsoft* (2025)
  Focused on building, training, and deploying ML models using Azure Machine Learning Studio and cloud environments.

Experience

01/2026 – Present   **AI Developer & Data Scientist** Fullstack | Cape Town, ZA

- Design and build AI-driven, cloud-native applications on AWS and Azure
- Develop and maintain backend software systems integrated with AI and machine learning components
- Deploy, manage, and scale services using AWS (EC2, S3, Lambda, RDS) and Azure (Virtual Machines, Blob Storage, Functions, Azure SQL)
- Build and manage data and ML workflows using **Databricks** for data engineering, analytics, and model deployment
- Implement and maintain CI/CD pipelines for automated testing, builds, and deployments (e.g., GitHub Actions, Azure DevOps, AWS CodePipeline, Bitbucket Pipelines)
- Use **Bitbucket** for version control, pull requests, and code reviews, and **Jira** for task tracking, sprint planning, and agile collaboration
- Integrate AI/ML models into production systems via APIs and backend services
- Ensure application reliability, performance, security, and scalability across cloud environments
- Write clean, maintainable, and well-tested code with clear documentation
- Collaborate closely with cross-functional and on-site teams, contributing to system architecture and cloud design decisions

Education

In Progress 01/2025   **Master of Science Specializing in Mathematical Statistics (Full Dissertation)** , University of Free State | Bloemfontein, ZA
GPA Average – in progress

Graduated 12/2024   **Bachelor of Science Honours specializing in Statistics and Data Science, and minor Actuarial Sciences major** University of Cape Town | Cape Town, ZA
GPA Average – 74%

Course Honours Major courses

1. Analytics – supervised & unsupervised learning
2. Multivariate Analysis
3. Statistical Computing
4. Actuarial Financial Economics
5. Portfolio theory
6. Operational Research
7. Time Series
8. Advanced Probability theory
9. Portfolio theory
10. Likelihood
11. Bayesian Analysis

Graduated 03/2023   **Bachelor of Commerce, specializing in Management Studies** University of Cape Town | Cape Town, ZA
GPA Average – 65%

In Progress 12/2017   Bachelor of Science, Specializing in Actuarial Sciences University of Free State | Bloemfontein, ZA
GPA Average – 78%

Graduated 12/2014   **National Senior Certificate,** Nghonyama High| Giyani, Limpopo ZA

Actuarial Board Exemptions

- Business Economics (A112)
- Business Finance (A113)
- Financial Mathematics (A211)

Honours & Awards

- Dean's List University of the Free State
- Best Aggregate average Actuarial Science, University of the Free State
- Best Aggregate average Actuarial Science, Moshal Scholarship
- GoldenKey International Society
- Top 3 learner at Nghonyama High School, Grade 1 -12
- Moshal Scholarship
- Jurgen Klauss Bathe Leadership Scholarship

Volunteering

- Adopt-a-school Foundation Tutor, Grade 8 and 9 (2021)
- UCT Mathematics competition (2019,2023)

References

- Ms Phelokazi Mbebe (Vacation accommodation Manager) – +27 71 606 7369
- Mr Patrick Rezandt (AAH Manager) - +27 82 211 0154