

# Kgomotso Mongale

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## Professional Summary

Impact driven graduate and a data enthusiast with extensive practical experience gained through a strong portfolio of self-directed projects. Applying machine learning and advanced analytics to solve complex problems, with demonstrable skills in areas like credit risk modeling, predictive analysis, web scraping, and data analysis with Power BI. Focused on turning complex data into actionable insights that support efficiency and strategic decision making. Committed to continuous learning and effective in clearly communicating technical solutions.

## Technologies & Technical Skills

- Python (Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, LightGBM, XGBoost, CatBoost)
  - SQL
  - Power BI
  - Matplotlib/Seaborn (Advanced Visualization)
  - Excel & PowerPoint (Advanced Reporting & Communication)
  - Machine Learning (Regression, Clustering, Deep Learning, NLP, Computer Vision)
  - CI/CD Pipelines
  - Data Pipeline Architecture (Dataflow, Cloud Composer)
- Credit Risk Modelling
  - Cross-functional Collaboration (Product/Engineering)
  - Data Governance & Regulatory Compliance
  - Stakeholder Management & Executive Communication
  - Full Project Lifecycle Ownership
  - Agile Methodology & Prototyping
  - Cloud Services (AWS)
  - Technical Documentation & Reproducibility

## Experience

Umuzi Leanership | Johannesburg, South Africa

Sep '25 – Feb '26

### Digital Marketing

- Project Management & Execution: Successfully designed and implemented a community volunteer project (Social Gigs), managing the full cycle from proposal and execution to reflection and evidence submission
- AI integration & Literacy: Gained fundamental knowledge in Generative AI, LLMs (Large Language Models), and AI Ethics, positioning for data-driven strategy and responsible technology adoption in marketing.
- Design Thinking Strategy: Applied Design Thinking methodologies (Empathize, Define, Ideate, Prototype) to complex problem-solving, fostering a user-centric and iterative approach.
- Digital Content Curation: Developed and presented structured reflections and project evidence for public sharing, demonstrating skills in digital communication and content curation.
- Data Fundamentals: Acquired a foundational understanding of Data Fundamentals for AI, essential for interpreting metrics and informing digital campaign optimization.

## Education

University of Johannesburg

Feb '23 - Nov '25

### Bachelor of Arts

- Discipline: Politics, Economics, and Information Systems
- Institute: University of Johannesburg
- Coursework: Database Design and Management, System Analysis and Design, Principles of Microeconomics and Macroeconomics, Network and Operating Systems, Policy Analysis, Political Campaign Analytics, Research Methods...

## Projects

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### *Credit Risk Classification Application*

- Developed and deployed a full-stack application using Python and Streamlit to classify a borrower's credit risk.
- Applied Machine Learning models to a financial dataset to solve a real-world business challenge.
- Showcases end-to-end skills, from model training to building a user-friendly, interactive web interface

### *Shopify Sales Data Analysis & Dashboard*

- Performed comprehensive sales and customer analysis using Power BI to track Net Sales, LTV (Lifetime Value), Repeat Rate, and AOV (Average Order Value).
- Employed DAX calculations for advanced custom measures and developed an interactive dashboard.
- Delivered actionable insights on peak sales hours, regional performance, and customer purchasing behavior for strategic decision-making.

### *Exploratory Data Analysis for Healthcare*

- Conducted in-depth Exploratory Data Analysis (EDA) on healthcare patient datasets.
- Used Python, pandas, and NumPy to perform data ingestion, cleaning, and bivariate analysis.
- Identified key trends and patterns that directly support data-driven decision-making in healthcare applications.

### *End-to-End Recommender System*

- Designed, trained, and deployed a book recommender system using Python, scikit-learn, and pandas.
- Built an accessible front-end interface using Streamlit.
- Used Docker for containerization and hosted the final application on AWS, demonstrating skills in MLOps and cloud deployment.

## Certificates

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DataTalks.Club	2026
<i>Certificate in Machine Learning</i>	
Explore AI (ALX Africa)	2026
<i>Certificate in Data Science</i>	
Explore AI (ALX Africa)	2026
<i>Certificate in Data Engineering</i>	
DataCamp	2025
<i>Credit Risk Modeling in Python</i>	

## References

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Available upon request.