

Calistus Mwonga

Data Scientist

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SUMMARY

Data Scientist with a Computer Science foundation and expertise across the full data lifecycle: data analysis, machine learning and model deployment. Experienced in building product-ready solutions that solve real-world business problems.

SKILLS

Languages: Python, SQL (MySQL, PostgreSQL)

Machine Learning & Analysis: Pandas, NumPy, SciPy, Statsmodels, Matplotlib, Seaborn, Scikit-Learn, TensorFlow, Keras.

Deployment & Cloud: FastAPI, Streamlit, Docker, REST APIs, Linux, Git, AWS (S3, EC2).

PROJECTS

Loan Default Prediction & Credit Scoring System | Python, Scikit-learn, Pandas, Streamlit |

[View project](#)

- Developed a credit risk model to identify high-risk loan applicants in Kenya & Ghana market, successfully navigating a highly imbalanced dataset with a default rate of less than 2%.
- Translated model probabilities into an actionable business tool by designing a 5-tier credit scoring system that segments applicants into clear risk categories (e.g., Very Low Risk, High Risk) for automated decision-making.
- Developed and deployed a live, interactive risk assessment application using Streamlit, providing a user-friendly interface for real-time loan evaluation.

Landslide Classification System | Python, FastAPI, TensorFlow | July - August, 2025.

[View project](#)

- Developed a computer vision system using multi-modal satellite data for landslides detection; LightGBM selected after outperforming CNN with F1-score of 0.86.
- Deployed the solution on Railway with FASTAPI as backend and Streamlit as frontend.

Car Insurance Claim Prediction | Python, Scikit-learn, Pandas | June, 2025.

[View project](#)

- Built and tuned XGBoost, achieving ROC-AUC of 0.66 to identify high-risk policyholders.
- Engineered features that improve the model's overall performance by 10%+
- Recommended risk-based premium pricing to reduce losses from high-risk claims.

EDUCATION

Moringa School | Nairobi, Kenya

Data Science Certificate | February 2025 - August 2025

Dedan Kimathi University of Science and Technology | Nyeri, Kenya

Bachelor of Science in Computer Science | November 2020 - November 2024

St. Thomas Moore Nguvu Boys High School | Embu, Kenya

Secondary Level of Education | February 2015 – November 2018

VOLUNTEERING

St. James Ngimu Church Ministry | Athi-River Kenya

Technician May 2024 – Present

- Managed digital display systems for projection of song lyrics and multimedia presentations.
- Improved service engagement, making it easier for attendees to follow organized messages
- Acquired technical proficiency in presentation software and real-time display management.