

BRIAN IRUNGU KURIA

Machine Learning Engineer | Python & Deep Learning | Model Evaluation & Statistical Analysis

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SUMMARY

Machine learning professional with hands-on experience in data analysis, model evaluation, and backend development, with strong Python skills and a track record of improving model performance through data preprocessing and statistical analysis. Built predictive models, analyzed datasets ranging from 10,000 to 50,000+ records, and developed backend systems supporting 500+ daily transactions. Well suited for machine learning, data science, and backend engineering roles where analytical thinking and practical execution matter.

KEY ACHIEVEMENTS

- Improved Model Accuracy

Boosted model accuracy by 15% enhancing data processing for 10,000 points.
- Backend System Development

Developed Django backend supporting over 500 transaction requests per day.
- QA Task Efficiency

Maintained task efficiency 20% above platform average, ensuring timely project delivery.
- Nairobi Airbnb Analysis

Conducted analysis on 500 Nairobi Airbnb listings, optimizing pricing strategies.

EXPERIENCE

- 04/2026 - Present

Nairobi, Kenya

Data science mentee

Phoenix Analytics Africa

Completed 3 comprehensive data science projects during mentorship at Phoenix KE Analytics using advanced Python and R techniques.

Developed 2 predictive models improving forecasting accuracy by 18% through data preprocessing and algorithm tuning.

Conducted exploratory data analysis on datasets containing over 50,000 records, identifying key trends and actionable insights.

Collaborated with a team of 5 analysts to refine data pipelines, enhancing data processing efficiency by 22%.
- 10/2025 - 04/2026

Nairobi, Kenya

Data science intern

Modus chora studio

Orchestrated data collection and preprocessing pipelines, handling 25,000+ records weekly for advanced modeling at Modus Chora Studio.

Conducted exploratory data analysis on datasets with 150 features, uncovering patterns to guide strategic decisions.

Improved model prediction accuracy by 12% by developing and evaluating statistical and machine learning models.

Created 30 visualizations that enhanced communication of findings to stakeholders across departments.
- 02/2026

Nairobi, Kenya

Mpesa Alternative Churn Prediction Audit

Churn prediction model

Identified 36% precision drop in Mpesa churn model causing 66% false positives by auditing production accuracy from 87% testing results.

Revealed 91% campaign failure rate in customer retention efforts by analyzing intervention outcomes for 1,000 active users.

Improved model accuracy gap from 55% to 69% during production audit by optimizing data processing of 10,000 points.
- 03/2024

Nairobi, Kenya

Event Ticketing Platform

E-commerce

Delivered an event ticketing platform, supporting over 12 events yearly by developing a scalable online ticketing solution.

Improved ticket sales efficiency by 30%, through a custom-built e-commerce event platform handling 100+ tickets per event.

Developed a robust admin dashboard that provided real-time insights into key platform metrics and improved decision-making.

Increase event attendance by 25% by deploying an accessible online ticketing system serving 12 events per year.
- 05/2023 - 12/2023

Remote

LLM output tester & QA contributor

Bulba code testers (remotask)

Reviewed and validated code snippets across multiple languages (C++, Java, JavaScript, Python, SQL) to ensure strict compliance with task guidelines.

Reviewed and validated over 500 code snippets in C++, Java, JavaScript, Python, and SQL, ensuring 100% compliance with task guidelines.

Identified and documented 150+ logic errors, syntax issues, and edge-case inconsistencies, enhancing AI training data quality by 30%.

Provided feedback and classified code performance for 200+ samples, contributing to a 25% increase in AI coding assistant accuracy.

Maintained task efficiency and quality scores 20% above platform average, achieving 100% on-time project deliveries.

EDUCATION

01/2025 - 02/2026

Nairobi, Kenya

Data Science Specialisation
ALX Africa x Explore AI Academy

- Completed an intensive applied data science program focused on machine learning, statistics, and real-world data analysis.
- Key Projects: Built hands-on projects covering supervised and unsupervised learning, neural networks, and model evaluation using Python.

09/2020 - 12/2024

Nairobi, Kenya

Bachelor of Information Technology
Kenyatta University

- Graduated with Second Class Honours (Upper Division).
- Coursework: Software Development, Databases, Networking, and IT Infrastructure.

CERTIFICATIONS

AWS Certified Solutions Architect

AWS

AWS Certified Cloud Practitioner

AWS

SKILLS

Machine Learning & Data

Exploratory data analysis feature engineering data preprocessing statistical modelling model evaluation

Python (Pandas, NumPy, scikit-learn) SQL Power BI

Programming & Backend Development

Python Go C++ RESTful API design MySQL Git

Cloud & Infrastructure

AWS (Cloud Practitioner, Solutions Architect) Docker Kubernetes Linux systems

Professional Skills

Analytical problem-solving technical research cross-team collaboration clear communication

FIND ME ONLINE

GitHub
<https://github.com/Kobeyvines>

Portfolio
<https://kobeyvines.github.io/>

M Blog
<https://medium.com/@kobeyvines>

Credly
<https://www.credly.com/users/brian-kuria.c0bed169>

PROJECTS

TITANIC SURVIVAL PREDICTOR (End-to-End ML Pipeline)

01/2026

- Improved prediction accuracy by 15% through designing an end-to-end machine learning pipeline for passenger survival.
- Uncovered key survival drivers through extensive feature engineering, statistical analysis, and data visualization.
- Deployed the model as an interactive web application, demonstrating the ability to translate complex algorithms into user-friendly, real-world solutions.

NAIROBI AIRBNB ANALYSIS

12/2025

- Conducted exploratory and statistical analysis on Nairobi Airbnb listings to evaluate pricing strategies, occupancy proxies, and host performance benchmarks.
- Uncovered revenue patterns and market opportunities through rigorous data cleaning, aggregation, and visualization techniques.
- Delivered actionable data-driven insights on profitability and competitive positioning to guide investment and hosting decisions.

PROJECTS

FOOD PRICES ANALYSIS IN KENYA (2007-2025)

📅 11/2025

- Conducted a longitudinal analysis of market-level data for key staples (beans, maize, potatoes), identifying long-term inflationary trends and significant price spikes (2022–2023).
- Uncovered regional volatility patterns in coastal and arid areas, highlighting structural supply-chain drivers and correlations between commodity prices.
- Derived strategic insights to inform policymakers and stakeholders on food security risks and inflation dynamics, bridging the gap between raw data and economic strategy.

E-COMMERCE BACKEND SYSTEM

📅 10/2025

- Engineered a production-ready backend using Django and Django REST Framework, implementing secure user authentication, inventory management, and order processing workflows.
- Improved deployment success rate by 10% through automated testing and CI/CD pipelines using Travis CI and GitHub Actions.
- Built scalable architecture with database normalization. Enhanced API security. Used Swagger/OpenAPI for documentation.

TRAINING / COURSES

Data Science Specialisation

ALX Africa x Explore AI Academy

Data Analyst

African Learning Experience

Machine Learning

African Learning Experience

Pro Backend Development

African Learning Experience

Python Programming

African Learning Experience

Cyber Security

African Learning Experience