

EMMANUEL MUNYAO NZIOKA

DATA ANALYST & BI ANALYST | PYTHON, R, SQL, POWER BI, TABLEAU | ASPIRING DATA SCIENTIST

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GitHub | LinkedIn | Portfolio

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SUMMARY

Data Analyst and Business Intelligence Analyst with hands-on experience analyzing, visualizing, and interpreting data to support business decision-making. Proficient in Python, SQL, and R, with strong experience building dashboards and reports using Power BI and Tableau. Experienced in data cleaning, statistical analysis, KPI reporting, and applied analytics, with practical exposure to predictive modeling and machine learning for business use cases. Actively transitioning toward a full data science role through hands-on model development and analytical decision systems. Strong communicator able to translate technical insights into clear, actionable recommendations for non-technical stakeholders.

PROJECTS

Comprehensive PHI Market Intelligence & Policy Impact Modeling System (AU)

- Built an end-to-end analytics and modeling system to analyze Australian private health insurance trends and policy impacts.
- Cleaned and harmonized complex multi-period datasets to produce national and state-level insured population time series.
- Developed interactive dashboards to examine long-term trends, COVID-period shifts, and demographic patterns.
- Applied logistic regression to model PHI uptake and assess Medicare Levy Surcharge policy effects, evaluated using ROC-AUC.

Tools: Python, pandas, Plotly, statsmodels, scikit-learn

Loan Increase Profit Optimization & Risk-Aware Decision Engine

- Built an end-to-end decision engine to optimize loan-limit increases using acceptance, default-risk, and profit modeling.
- Applied customer segmentation, logistic regression, and risk-state modeling to estimate acceptance and default probabilities.
- Optimized portfolio-level decisions under risk constraints using linear programming and simulation-based scenario analysis.
- Explored reinforcement learning to learn data-driven loan offer policies under uncertainty.

Tools: Python, pandas, scikit-learn, PuLP, Monte Carlo Simulation, Reinforcement Learning

Security Awareness Training Impact Analyzer

- Security Awareness Training Impact Analyzer
- Analyzed security training and phishing assessment data to evaluate the effectiveness of different training methods across departments.
- Built and tuned classification models (Random Forest and others) to predict post-training performance and measure improvement.
- Applied statistical testing (correlation analysis, t-tests, ANOVA) and visualizations to compare outcomes and quantify training impact.

Tools: Python, pandas, scikit-learn, SciPy, matplotlib, seaborn

WORK EXPERIENCE

Freelancer — Data Analyst / Applied Data Science & ML

Nairobi, Kenya | Jan 2021 – Present

- Designed and implemented end-to-end analytical and machine-learning workflows, from data ingestion and cleaning to modeling, evaluation, and insight delivery.
- Built predictive models (classification and regression) to support use cases, including customer churn, demand forecasting, pricing analysis, and risk assessment.
- Applied statistical modeling and machine learning techniques to analyze campaign performance, estimate ROI, and support A/B testing and decision optimization.
- Engineered features, segmented customers, and evaluated models using appropriate metrics to ensure practical, business-relevant performance.
- Developed interactive BI dashboards and analytical reports to communicate model outputs, trends, and recommendations to non-technical stakeholders.

ZukBits Online — Systems & Data Analyst / System Administrator(Internship)

Remote | Aug 2025 – Present

- Performed system testing, monitoring, and administration to ensure platform reliability, performance, and data integrity.
- Analyzed system usage, traffic, and operational data to generate insights supporting product, SEO, and digital marketing decisions.
- Built reports and dashboards to track performance metrics across systems, campaigns, and user behavior.
- Supported SEO and digital marketing analytics by analyzing trends, engagement, and conversion data to inform optimization strategies.
- Worked across technical and non-technical teams to translate system and marketing data into actionable insights.

Yamat Engineering EA — Data Analyst / Data Systems Analyst

Makueni, Kenya | Jan 2022 - April 2023

- Led the transition from manual record-keeping to a structured, data-driven workflow by designing and implementing an Inventory Management System (IMS).
- Modeled inventory and transaction data to enable automated tracking, reporting, and improved data accuracy.
- Analyzed inventory, sales, and operational data to identify demand patterns, inefficiencies, and stock risks.
- Produced monthly analytical and financial reports to support planning, procurement, and management decision-making.
- Collaborated with operations and finance teams to define data requirements and ensure the system supported real business processes.

EDUCATION

BSc. Software development

KCA University

Sep 2021- Present

Certificate in Higher Education, Web Development and Design

KCA University

2021

Certificate in Higher Education, Data Science

Mentors Without Borders, Global.

2023

STEM Training - Tutor

STEMRobo Kenya

2024

References available upon request.