FREDA ERINMWINGBOVO

Data Analyst | Data Scientist
Abuja, Nigeria | +234 706 247 4427 | fredaerins@gmail.com
linkedin.com/in/freda-erinmwingbovo | github.com/Freda-Erinmwingbovo | Portfolio:
freda-erinmwingbovo.github.io

PROFESSIONAL SUMMARY

Detail-oriented Data Analyst and Data Scientist with a strong foundation in Electrical and Electronics Engineering, combined with hands-on experience in structured field investigation and technical reporting. Actively building a professional portfolio in R, Python, SQL, Power BI, and Advanced Excel. Completed high-impact projects analyzing retail and e-commerce datasets exceeding 600,000 records, delivering actionable business intelligence. Skilled at translating complex findings into clear insights for non-technical stakeholders. Seeking remote Data Analyst or Data Scientist roles where data-driven decisions create measurable business impact. Immediately available globally.

CORE COMPETENCIES

Technical Skills

- R (tidyverse, ggplot2, caret, Quarto)
- Python (pandas, numpy, scikit-learn, matplotlib, mlxtend, statsmodels)
- SQL (querying, joins, aggregations, subqueries, window functions)
- BI (DAX, data modelling, interactive dashboards)
- Advanced Excel (pivot tables, Power Query, VLOOKUP/XLOOKUP, dynamic charts)

Analytical Skills

• Customer Segmentation (RFM analysis, K-Means clustering)
• Churn Prediction & Classification
• Association Rule Mining (Apriori algorithm)
• Demand Forecasting (Holt-Winters Exponential Smoothing)
• Machine Learning (Random Forest, Decision Tree, SVM, Logistic Regression)
• Exploratory Data Analysis (EDA) & Feature Engineering
• Business Intelligence Reporting & Stakeholder Communication

Tools & Platforms

• Quarto | R-Studio | | Jupyter Notebook | GitHub | SQLite | Microsoft Office Suite

PORTFOLIO PROJECTS

Customer Purchasing Behaviour and Demographics | Blackwell Electronics

R | Machine Learning | Quarto

- Performed end-to-end customer analytics on 80,000+ transaction records using R.
- Developed and evaluated three ML models (Random Forest, Decision Tree, SVM) to predict purchase channel, age bracket, and region, achieving 93.2% accuracy on purchase channel prediction.
- Uncovered significant regional spending variations (North America, Europe, Asia) and provided actionable recommendations for inventory allocation and targeted marketing.
- Delivered findings in a professional, reproducible Quarto HTML report with full preprocessing (missing values, feature engineering) and cross-validation for model reliability.

Business Intelligence and Revenue Optimization | NovaMart Global

Python | Machine Learning | Quarto

- Built comprehensive six-theme BI analysis on 524,878 transaction records from a UK-based online retailer operating in 38 countries.
- Applied RFM segmentation via K-Means clustering (k=4), revealing that 717 Champion customers (16.5% of base) drive 65% of total revenue, highlighting critical concentration risk.
- Constructed churn prediction models (Logistic Regression, Random Forest, Decision Tree) using engineered behavioural features (no target leakage), achieving ROC-AUC of 76.39%.
- Generated 194 cross-sell association rules via Apriori algorithm, with lift values up to 27.2, ready for recommendation engine integration.
- Produced demand forecasts using Holt-Winters Exponential Smoothing; identified major pricing inconsistencies (e.g., top revenue product varying from GBP 4.00 to 32.04).

Retail Card Portfolio, Fraud Intelligence and Transaction Risk | NorthBridge Bank

SQL | Python | Quarto

- Designed and executed a seven-theme fraud intelligence investigation across 1,296,675 credit card transactions spanning 18 months of retail card portfolio data for a fictional UK-based bank.

- Built a full data pipeline in Python, cleaning, feature engineering, and constructing an in-memory SQLite database, then conducted all analysis exclusively in SQL across seven structured business questions.
- Identified that fraudulent transactions carry a materially higher average value than legitimate transactions, and that fraud is concentrated in identifiable categories, amount bands, geographic clusters, and predictable time windows.
- Produced demographic, geographic, temporal, and amount-based fraud risk profiles with actionable monitoring rule recommendations for each risk dimension.
- Delivered findings in a professional Quarto HTML report styled to institutional banking standards with a classification banner, tabbed analysis structure, and executive summary addressed to the CEO.

PROFESSIONAL EXPERIENCE

Investigation, Inspection and Maintenance Officer

Ibadan Electricity Distribution Company (IBEDC) | Nigeria
August 2019 – March 2022
- Conducted field investigations and physical inspections of electricity meters to identify energy theft, tampering, and billing anomalies across assigned districts.
- Authored detailed investigation reports with evidence, findings, and corrective recommendations, supporting revenue protection and loss reduction efforts.
- Collaborated with maintenance teams to prioritize and schedule fault resolution for high-risk cases using analytical prioritization.
- Maintained precise field documentation and escalated complex issues through formal channels, demonstrating strong attention to detail.

Investigation and Inspection Officer (NYSC)

Jos Electricity Distribution Company (JEDC) | National Youth Service Corps
2017 – 2018
- Performed meter inspections and energy theft investigations throughout the Jos distribution network.
- Produced structured reports and supported loss reduction through accurate, timely documentation.
- Built foundational skills in evidence-based reporting, structured observation, and professional communication in field environments.

EDUCATION

Bachelor of Engineering (B.Eng) – Electrical and Electronics Engineering
Ambrose Alli University, Ekpoma, Edo State, Nigeria
Graduated 2016

CERTIFICATIONS

- Certificate in Data Analytics — In Progress (Expected 2026)

NIIT, Abuja, Nigeria

- Diploma in Data Analytics — In Progress (Expected 2026)

NIIT, Abuja, Nigeria

ADDITIONAL INFORMATION

- **Availability**: Immediately available for remote roles worldwide.
- **Engineering Foundation**: B.Eng in Electrical and Electronics Engineering provides deep quantitative skills in systems thinking, signal analysis, and structured problem-solving, highly transferable to data analytics and machine learning applications.