

GAMUCHIRAI WHITNEY NYATSANZA

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Personal Statement

Analytical and detail-oriented data scientist and developer with hands-on experience in software development and data analytics. Proficient in programming, data structures, database design, SQL, data processing, and applied machine learning. Skilled in developing, testing, and maintaining data-driven systems and analytical solutions. Strong problem-solving abilities, attention to detail, and the capacity to adapt quickly in collaborative, technically demanding environments.

Core Qualifications

- Software Development (Python, JavaScript, React)
- Applied Machine Learning & Predictive Modelling
- Backend & Frontend Application Development
- Database Design & Management (MySQL)
- Data Visualization & Reporting
- Agile & Team-Based Development Environments
- Problem Solving & Analytical Thinking
- Data Structures & Algorithms
- Debugging & Testing
- Version Control (Git)

Education

Institution Name: National University of Science & Technology, Bulawayo, Zimbabwe

Degree Obtained: BSc Honors Degree in Informatics (2025)

Degree Class: Upper Second Division (2.1)

Work Experience

Position: GIS Processing Assistant 10/2025 – Current

Company – Fangorn Group Limited, Kettering, England (Remote)

- Design detailed cemetery basemaps by digitizing burial plots in QGIS.
- Assign unique identifiers to graves to ensure consistent and organized spatial records.
- Produced maps and geospatial datasets to support reporting, planning, and cemetery management.
- Collaborate with team members to streamline GIS workflows and improve data quality.

Position: Intern Data Analyst 10/2023 – 07/2024

Company – Coronation Solutions, Harare, Zimbabwe

- Designed and implemented predictive and analytical models using Python, supporting strategic decision-making for the Zimbabwe Stock Exchange.
- Developed automation scripts to improve efficiency in financial calculations, risk assessment, and reporting.
- Maintained and updated foreign exchange rate data in company spreadsheets, ensuring accuracy for reporting and modeling.
- Designed and launched a corporate website for Laser Human Capital, enhancing the subsidiary's digital presence and accessibility.

Professional Relevant Skills

- **Technical Skills:** Python (Flask, Pandas, NumPy), React.js, SQLAlchemy, Machine Learning (Random Forest, TensorFlow, Prophet), Data Visualization (Plotly, Matplotlib, QGIS, Power BI), GIS & Spatial Analysis, Version Control (Git)
- **Soft Skills:** Problem-solving, Effective Communication, Teamwork, Attention to Detail, Agile Project Management.

Projects

Customer Churn Prediction System | Mobile Money Services (Zimbabwe) 01/2026

Personal Project

Tools: *Python • Flask • React • XGBoost • Scikit-learn • Pandas • MySQL*

- Developed end-to-end ML solution predicting customer churn for mobile money providers, achieving 89% ROC-AUC with XGBoost on synthesized dataset reflecting Zimbabwe market dynamics (POTRAZ data)
- Engineered 23 predictive features including transaction trends, network quality scores, and Zimbabwe-specific factors (load shedding, agent availability); addressed 18% class imbalance using SMOTE
- Built Flask REST API and React dashboard with real-time predictions, SHAP-based explanations, segmented analytics by geography/occupation, hence 20% churn reduction
- Deployed production-ready application with PostgreSQL database, Docker containerization, and comprehensive API documentation

TikTok Marketing Intelligence Dashboard 02/2026

Personal Project

Tools: *Power BI, Python, DAX*

- Built an interactive business intelligence dashboard analysing TikTok trends across industries (beauty, finance, tech) to inform marketing strategies
- Tracks category performance, brand hashtag campaigns, influencer ROI metrics, and trending audio for business content
- Provides actionable insights for brands to optimize content strategy and campaign performance on TikTok

Optimal Currency Allocation Model 04/2024 - 06/2025

National University of Science and Technology

Tools: *Python, Streamlit, Pandas, Random Forest*

- Designed an interactive web app where users input a currency of interest and receive calculated investment recommendations using machine learning to optimize portfolio distribution
- Presented as my final year project and successfully demonstrated its effectiveness in optimizing currency investment strategies

Stock Price Prediction Model 04/2023 - 08/2024

Coronation Solutions, Harare, Zimbabwe

Tools: *Python, Scikit-learn, Prophet, Jupyter Notebook, Streamlit, Git*

- Developed a machine learning model to forecast stock price trends using historical price data and technical indicators
- Applied feature engineering and model evaluation techniques to achieve high accuracy
- The model code was adapted by the Zimbabwe Stock Exchange (ZSE) to assist investors with informed insights

Licenses

Clean Class 4 Drivers License

References

Available Upon Request