Michael Tunwashe

Mathematics Undergraduate | Risk & Data Analytics | Python, SQL & Statistical Modelling
Lagos, Nigeria | motrenewed@gmail.com | github.com/mictuns | linkedin.com/in/mictuns

Summary

Mathematics undergraduate with experience in data analysis, statistical computing, backend engineering, and machine learning. Interested in quantitative risk, energy-market analytics, forecasting, and financial systems. Applied project work includes statistical validation of systematic trading strategies, financial news sentiment modelling, and analytical data pipelines. Combines mathematical training with practical Python, SQL, and software engineering experience to build reliable analytical tools and data-driven systems.

Core Competencies

- Statistical Analysis
- Quantitative Risk Concepts
- Time-Series Analysis
- Forecasting Methods
- Statistical Computing
- Machine Learning / NLP
- Model Evaluation
- Python / NumPy / pandas
- Data Pipelines & ETL
- SQL / PostgreSQL
- Data Quality & Integrity
- Backend Systems

Experience

Technical Lead, LunixDV April 2026 – Present

- Coordinate a four-developer team across software and AI projects, overseeing implementation, technical decisions, and delivery.
- Design backend systems and data workflows with emphasis on reliability, data integrity, and maintainable architecture.
- Contribute to data-driven and quantitative components for fintech and AI applications.

LLM Evaluator, Turing December 2025 – February 2026

- Evaluated large language model outputs against structured technical and reasoning criteria.
- Conducted systematic error analysis to identify reliability issues, reasoning failures, and recurring model limitations.
- Applied consistent evaluation frameworks to assess model outputs across technical tasks.

Data Analyst Intern, HNG Tech August 2025 – November 2025

- Automated analytical and reporting workflows using Python and SQL.
- Developed dashboards and analytical outputs to support data-driven decision-making.
- Worked with data transformation and reporting processes to improve consistency and data quality.

Selected Projects

Nohoct — Statistical Strategy Validation October 2026 – Present

- Developing a statistical validation framework for evaluating trading strategies and testing whether apparent market patterns are distinguishable from random outcomes.
- Implementing vectorized backtests, moving-average and RSI strategy grids, and out-of-sample evaluation designed to avoid look-ahead bias.
- Exploring multiple-testing controls, Deflated Sharpe Ratio, and Probability of Backtest Overfitting using combinatorially symmetric cross-validation.

Financial News Sentiment — ML Signal Study 2025 – 2026

- Fine-tuned DistilBERT on FinancialPhraseBank for bullish, bearish, and neutral financial sentiment classification.
- Developed CLI and Gradio tools for model probing and evaluation.
- Examined confidence calibration, class-imbalance effects, and the limitations of classification accuracy as a proxy for market-relevant signals.

Centaur — Trading API & Strategy Platform February 2026 – Present

- Developing an authenticated financial API with structured market-data access and ML model lifecycle management.
- Building a modular strategy backtesting engine with separate data and execution interfaces.
- Designing backend infrastructure to support systematic strategy research and financial data workflows.

ZRAI — Zero-Retention AI Privacy Sidecar October 2026 – Present

- Developing a local-first privacy proxy using a Rust core and TypeScript sanitization rules.
- Implementing OpenAI- and Anthropic-compatible HTTP/SSE interfaces, request sanitization, and in-memory processing.
- Building automated tests for data handling and service reliability.

Education

B.Sc. Mathematics University of Lagos Expected 2028

Relevant Coursework: Linear Algebra, Probability & Statistics, Differential Equations, Abstract Algebra

Technical Skills

Programming & Data: Python, SQL, TypeScript, JavaScript, Rust, NumPy, pandas, SciPy

Statistical & Quantitative: Statistical analysis, statistical computing, time-series methods (ARIMA/SARIMA, exponential smoothing), walk-forward validation, backtesting, Deflated Sharpe Ratio, Probability of Backtest Overfitting
Machine Learning: scikit-learn, PyTorch, Transformers, model evaluation, NLP, confidence calibration
Data & Engineering: PostgreSQL, FastAPI, ETL pipelines, Docker, Linux, Git, REST/SSE APIs, React, CI/CD