

MICHAEL KWABENA GYIMADU

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EDUCATION

Wingate University

Bachelor of Science in Mathematics, Economics Minor (Hons)

Expected May 2027

Wingate, NC

GPA: 4.0

Relevant Coursework: Probability & Statistics, Linear Algebra, Multivariable Calculus, Economic Impact Analysis, Differential Equations, Financial Markets, Financial Accounting

TECHNICAL SKILLS & CERTIFICATIONS

Programming: Python, C++, SQL, TypeScript

Libraries/Tools: Numpy, pandas, scikit-learn, TensorFlow, Jupyter, Matplotlib, Git, GitHub, PostgreSQL, React

Statistical & Machine Learning: Time series analysis, logistic regression, ensemble models (Random Forest, XGBoost), volatility modeling, hypothesis testing, neural networks, PCA, Sharpe ratio optimization

Finance: Risk modeling (VaR), DCF modeling, portfolio optimization, asset allocation, Tableau, Excel VBA

Certifications: Machine Learning Specialization (DeepLearning.ai), SQL for Data Science (Coursera)

EXPERIENCE

Student Equity Analyst

Wingate Investment Club

Apr. 2024 - Present

Wingate, NC

- Conduct **equity research** and present **buy/sell ideas** to a student-run fund managing **\$200K in AUM**.
- Analyze equities & ETFs using **DCF**, **comparables** & sector trends to inform **asset allocation** and rebalancing.
- Leverage proprietary signal builder insights to support asset allocations, contributing to a **4% outperformance vs. the S&P 500**.

PROJECTS

Portfolio Backtest Engine | Python, C++, pandas, yFinance, scikit-learn

- Built a portfolio simulation tool for **backtesting** strategies across **30+ ETFs** using historical market data.
- Implemented an intelligent **data caching** system reducing API calls by **85%** with 7-day freshness windows.
- Designed **modular architecture** supporting customizable contributions, rebalancing, and asset allocations.
- Integrated macroeconomic event overlays to evaluate portfolio sensitivity and enhance **risk assessment**.

Macroeconomic Signal Builder | Python, pandas, yFinance, scikit-learn

- Developed a macro signal system using economic indicators to guide investment timing and allocation shifts.
- Designed **time series pipelines** with rolling stats & volatility metrics to generate **real-time trading signals**.
- Automated signal performance tracking in **Python**, improving development speed and reproducibility.
- Enabled **data-driven** investment decisions through **predictive analytics**.

Equity Screener | Python, FastAPI, yFinance, PostgreSQL, NextJS

- Built a real-time stock screener for undervalued, high-yield, low-risk U.S. equities from a 2,000+ stock universe.
- Implemented filters for valuation, dividends, volatility, and size to surface actionable investment opportunities.
- Developed a full-stack platform with **FastAPI** and **Next.js** to fetch, process, and display real-time market data.
- Optimized **API performance**, reducing latency by **40%** to improve speed and user experience.

Credit-Default Prediction Model | Python, scikit-learn, numpy, Flask

- Built a **logistic regression** model to predict credit default using a dataset of 30,000+ credit card clients.
- Performed **feature scaling** and **hyperparameter tuning (GridSearchCV)** to optimize model performance.
- Achieved strong classification metrics, including **ROC-AUC score of 0.865**, after model evaluation.
- Deployed model via a **Flask API**, enabling real-time default predictions from user-input financial data.