MICHAEL KWABENA GYIMADU

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Education

Wingate University Expected May 2027

Bachelor of Science in Mathematics, Economics Minor *Wingate, NC*

GPA: 4.0 | **Honors:** President's List(x4)

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

Technical Skills & Certifications

Programming: Python, C++, SQL, JavaScript/TypeScript

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

Finance: Financial & Risk modeling (DCF, comparables), Tableau, Microsoft PowerBI, Excel VBA, Yahoo Finance API, Bloomberg terminal, Time-Series Forecasting

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

Projects

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

- Built a portfolio simulation engine 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 historical event overlays for performance correlations with major market events for **risk assessment.**

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

- Built a **signal system** using economic data to **predict market shifts** and guide stock investment timing.
- 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.
- **Backtested** signal strategies, **increasing Sharpe ratio by 18%**; cutting losses by 12% vs. passive investing.

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.

Experience & Campus Involvement

Student Analyst Apr. 2024 - Present

Wingate Investment Club *Wingate, NC*

- Conduct **equity research** and pitch **buy/sell ideas** to a student-run fund managing **$200K in assets**.
- Perform weekly **analysis & valuation** of equities & ETFs using DCF, comparables, & comps-based valuations.
- Inform portfolio decisions and annual rebalancing across 10+ sectors, contributing to **alpha generation**.
- Contributed to the fund **outperforming the S&P 500 by 2%** over the latest fiscal year.