MICHAEL KWABENA GYIMADU

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Education

Wingate University Expected May 2027
Bachelor of Science in Mathematics, Economics Minor (Honors) *Wingate, NC*
Honors: GPA: 4.0 | President's List
Relevant Coursework: Algorithms & Data Structures, Probability & Statistics, Linear Algebra, Multivariable Calculus, Economic Impact Analysis, Differential Equations, Financial Markets, Financial Accounting
Certifications: CFA Investment Foundations Certificate, Machine Learning Specialization (DeepLearning.ai)

Technical Skills

Programming: Python, C++, SQL, R, TypeScript
Libraries/Tools: Numpy, pandas, scikit-learn, TensorFlow, Jupyter, Matplotlib, Git, GitHub, PostgreSQL, React
Statistical & Machine Learning: Time series analysis, linear & logistic regression, ensemble models (Random Forest, XGBoost), volatility modeling, hypothesis testing, neural networks, PCA, Monte Carlo simulation
Finance: Financial & risk modeling(VaR), discounted cash flow analysis, portfolio management & optimization, equity valuation, derivatives, asset allocation, risk management, Tableau, Microsoft Excel/VBA, market research

Experience

Equity Research Analyst Intern Apr. 2024 - Present
Wingate Investment Club *Wingate, NC*

- Conduct fundamental research on **5-10 equities** quarterly, pitching **buy/sell ideas** to a **$200K** student fund.
- Performed **DCF** and relative valuation on **25+** equities to guide semi-annual **rebalancing** decisions.
- Collaborate with a 7-member team to analyze equities and refine allocations to boost **risk-adjusted returns**.
- Contributed to the generation of **400bps annual alpha** over benchmark S&P 500 in the latest fiscal year.

Projects

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

- Built a backtesting tool for portfolio strategy evaluation, enabling 95% faster scenario testing on **30+ ETFs**.
- Designed **modular architecture** allowing independent customizable allocation and rebalancing actions.
- Integrated macroeconomic event overlays to enable assessment of portfolio sensitivity/risk and guide allocation.
- **Cut API calls by 85%** through intelligent caching, reducing data retrieval time to milliseconds.

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

- Built a macro signal system in Python using leading & lagging **economic indicators** to guide asset allocation.
- Designed **rolling stats pipelines**, and automated signal tracking reducing manual computation time by **80%**.
- Enabled data-driven decision by integrating signals into portfolio allocation workflows for student-fund.

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

- Built a screener for 2000+ US equities with filters for price, valuation, risk, and momentum factors.
- Deployed a full-stack platform with **FastAPI** and **Next.js** to deliver real-time price and market data.
- Optimized **API** performance, **reducing latency by 40%** and improving platform responsiveness for end users.
- Utilized screener for real-time equity filtering for investment club anlalysis, cutting research time by 60%.

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

- Developed a **logistic regression** model on 30,000+ credit card clients to predict credit default risk.
- Tuned hyperparameters with **GridSearchCV** achieving **ROC-AUC 0.865** & cutting false positives by 15%.
- Deployed the model via a **Flask API**, for real-time credit risk assessment to enable faster loan approvals.