

# Abba Otieno Ndomo

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## Data Analyst / Data Scientist Intern

Work Authorization: F-1 (CPT eligible) | OPT (May 2027) | STEM OPT eligible | No sponsorship required for internship (CPT)

### Technical Skills

**Languages:** SQL (CTEs, Window Functions, Joins), Python (Pandas, Scikit-Learn), R, Bash  
**Tools & Ecosystem:** Snowflake, Airflow, Git (Version Control), Tableau, Excel (VBA/Macros), dbt, VS Code  
**Analytics:** A/B Testing, Experiment Design, KPI Definition, ETL Pipelines, Hypothesis Testing, Regression Analysis

### Experience

- KPMG (Automation/NLP)**

Mumbai, India  
Jun 2024 – Aug 2024

*Software Engineering Intern (Data & Analytics Focus)*

  - Manual audit QA processes were prone to human error and high latency.
  - Engineered a RAG-based NLP pipeline using Python and SQL to automate document verification; optimized data retrieval with advanced SQL indexing.
  - Achieved 95% precision in automated audits and improved data pipeline test coverage by 40% using a scalable PyTest suite.
- GT Investment Committee**

Atlanta, GA  
Jan 2025 – Present

*Quantitative Analyst Mentee*

  - Manual evaluation of ticker performance delayed rebalancing of a \$500K ETF portfolio.
  - Developed an automated equity screener in Python using `pandas` and `yfinance`; built regression models to identify alpha in undervalued assets.
  - Reduced manual research time by 60% and provided data-driven buy/hold recommendations adopted by the committee chair.

### Selected Projects

- Boxxer AI — ML-Powered Packing Assistant**

Jan 2024 – Present

*React Native, Python (Flask), Knapsack Optimization, FastAPI, SHAP*

  - Designed and deployed travel assistant app to optimize item recommendations within weight limits.
  - Trained ML model on 300+ user sessions; implemented SHAP analysis to rank user-specific packing priorities.
- Loan Default Predictor (End-to-End Analytics Case Study)**

Independent Project  
Nov 2024 – Dec 2024

*SQL, Python, XGBoost, SHAP*

  - Needed to identify high-risk borrowers to minimize financial loss for a synthetic lending dataset.
  - Executed complex ETL using SQL (CTEs, Null handling) to clean raw data; trained an XGBoost classifier and applied SHAP for model interpretability.
  - Delivered a model with 94.4% AUC and a summary memo for "stakeholders" explaining the top 3 risk drivers (Debt-to-Income, Credit Score, History).
- Queueing Analysis of Hemphill Intersection — QPLEX, Python, Data Analysis**

Dec 2024

*ISYE 3232, Georgia Tech*

  - Parsed 600+ vehicle events from intersection video footage to calculate interarrival, waiting, and service times.
  - Modelled as M/M/1 queue; used QPLEX to simulate pedestrian disruption impact, showing 17.4% increase in average wait.
- Quantitative Trading Library**

Jan 2024 – May 2024  
Atlanta, GA

*Python, Black-Scholes, Monte Carlo*

  - Needed a scalable framework to price complex derivatives and backtest strategies.
  - Built an object-oriented library in Python implementing Black-Scholes and Monte Carlo simulations; integrated LOB dynamics for backtesting.
  - Developed high-performance delta-hedging logic that improved risk-adjusted return simulations for options spreads.

### Education

- Georgia Institute of Technology**

Atlanta, GA  
Aug 2023 – May 2027

*BS, Industrial & Systems Engineering; Minor in Mathematics*

  - Relevant Coursework: Probability & Statistics, Linear Algebra, Optimization, Data Engineering Operations.

### Awards and Honors

Dean's List @ Georgia Institute of Technology  
Peer Inspiration Award @ Georgia Tech ISyE Center for Academic Success  
Third Place – OKSEF International Engineering Fair (Chemical Eng. Category)

### Leadership & Engagement

- Chair – DEI Committee, ISyE Department**

Atlanta, GA  
2023 – 2024

*Analytics Working Group Lead*

  - Analyzed climate survey data from 500+ respondents; synthesized key insights into a visual dashboard presented to department heads.
  - Drafted an action plan addressing top student concerns; recommendations were officially adopted into the FY24 program strategy.