

# Abba Otieno Ndomo

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## EDUCATION

Georgia Institute of Technology

Aug 2023 – May 2027

BS, Industrial & Systems Engineering, Computer Science

**Relevant Coursework:** Honors Linear Algebra w/ Abstract Vector Spaces, Intro to Real Analysis & Abstract Algebra, Discrete Mathematics, Graph Theory, Data Structures & Algorithms, Probability Theory, Accounting I, Statistical Methods

### AWARDS:

- **Dean’s List**, Georgia Institute of Technology
- **Peer Inspiration Award**, Georgia Tech Industrial and Systems Engineering Center of Academic Success (**ISYExCASE**)

## TECHNICAL SKILLS

- **Languages:** Python, SQL, R, Java, HTML/CSS, JavaScript
- **Tools/Frameworks:** Pandas, Scikit-learn, Django, Bootstrap, BeautifulSoup, Quarto, Git
- **Concepts:** Statistical Analysis, A/B Testing, Data Wrangling, EDA, ML Modeling, Experimentation, Dashboards

## EXPERIENCE

Software Engineering Intern – KPMG

Jun 2024 – Aug 2024

- Engineered microservices in Python to support a Retrieval-Augmented Generation (RAG) backend for enterprise document search, integrating PDF parsing, SQL databases, and vector store retrieval.
- Implemented data preprocessing pipelines including custom tokenization, stopwords removal, and embedding generation to optimize LLM query performance.
- Benchmarked generative model outputs (LLM fine-tunes) using accuracy, recall, and latency metrics; contributed to prompt design for domain-specific QA tasks.
- Developed PyTest-based unit and integration tests (99%+ pass rate) and documented workflows using Quarto; collaborated cross-functionally to finalize deployment readiness.

## PROJECTS

Credit Scoring Web Application

Jan 2024 – Present

Python, Django, PostgreSQL, CatBoost, XGBoost, SHAP, HTML/CSS, Bootstrap, Git, GitHub, Docker, AWS EC2

- Built an ML-powered web app to score visa applications using classification models (AUC = 0.944) and SHAP explainability.
- Designed end-to-end pipeline: data ingestion, training, visualization, and bias mitigation via fairness-aware tuning.
- Delivered responsive dashboards with score transparency for consulates and applicants.

Portfolio Website (Live)

Nov 2024 – Present

Python, Django, HTML/CSS, Bootstrap, JavaScript, SQLite, Render

- Created full-stack site featuring Markdown blog, resume viewer, dynamic project cards, and CMS via Django Admin.
- Deployed to Render with static/media routing and AOS animations; enabled PDF export and version tracking.

U.S. Flight Delay Predictor

Jan 2024 – May 2024

Python, Pandas, Scikit-learn, R Markdown

- Created regression model (adj.  $R^2 = 0.763$ ) using multi-year flight data; validated with ANOVA and chi-square tests.
- Designed KNN classifier (76% accuracy) with hyperparameter tuning and cross-validation.

## INVOLVEMENT & LEADERSHIP

Quantitative Analyst Mentee | Python, SQL, Bloomberg Terminal, Rolling Stats

Jan 2025 – Present

- Structured a reproducible data framework for sector-level ETF tracking across macroeconomic conditions.
- Built rolling regression systems to allocate \$1M+ in investment capital across models.
- Created time-series pipelines using Python to analyze macroeconomic risk regimes and ETF exposure.

Committee Member – ISYE Diversity, Equity & Inclusion Committee

Aug 2024 – Present

- Standardized candidate evaluation process and led structured interview documentation for academic hiring.