Ibrahima Barry

AI/ML Engineer | iblouse49@gmail.com | 614-312-4440 | LinkedIn | GitHub | Portfolio | Brooklyn, New York

Summary

Data Scientist with a strong background in statistical modeling, machine learning, and analytics engineering. Experienced in Python, SQL, AWS, and Tableau, with a proven ability to deliver actionable insights and build scalable solutions that drive measurable impact across fundraising, product, and marketing efforts. Passionate about using data to solve real-world problems and support strategic decision-making.

Skills

- **Programming & Tools**: Python, SQL, R, SAS, PySpark, Excel, Tableau, Power BI, Snowflake, Databricks, DBT
- **Cloud & Infrastructure**: AWS (S3, Redshift, Glue, SQS), Docker, MLflow
- **Techniques & Practices**: Data Modeling, Data Storytelling, Statistical Analysis, Time Series Forecasting, Deep Learning, NLP, Customer Segmentation, MLOps, Optimization, ETL, GenAI

Experience

Senior Data Science Consultant — *Data In Motion* — *New York, NY* — **Nov 2024 – Present**

- Increased **user conversions by 18%** by analyzing funnel survey and website data using **Python** and **SQL**.
- Used **Python** and **Google Analytics** to review **8 competitor platforms,** leading to course adjustments that raised **user retention by 15%.**
- Built **time series forecasts** in **Python** and shared engagement patterns through **Tableau,** improving **resource allocation by 20%.**

Analytics Engineer — *USA for UNHCR* — *New York, NY* — **May 2022 – Jan 2024**

- Built a **gradient boosting classifier** in **Python** to predict donor likelihood, deployed using **Docker**, **MLflow**, and **AWS**, leading to a **20%** increase in end-of-year donations within two months.
- Developed an automated data pipeline using **AWS Glue** and **SQL** to centralize **Salesforce** and **S3 data** into **Redshift,** improving **data consistency** and **reducing manual** effort by **35%**.
- Conducted Analyzed the impact of city awareness campaigns using **SQL** for data aggregation**, Python** for statistical analysis**,** and **Tableau** for visualization, revealing that shifting 10% of the budget to digital advertising increased online donations by 25%.
- Automated donation approval monitoring with **Python, AWS SQS,** and **Docker,** triggering email alerts when approval rates dropped below 93%**,** saving the organization over **$400,000 annually**.
- Developed an ensemble model combining **logistic regression, neural networks,** and **gradient boosting** in Python to **identify Ukraine war donors likely to give again,** resulting in a **15% increase** in donations within a month of implementation.
- Created a **Tableau dashboard** to give senior leadership insights into Ukraine war donors, supporting data-driven strategies for donor retention and future fundraising campaigns.
- Ranked potential donors by likelihood to give, using machine learning models and recommending that the fundraising team focus outreach on the top-scoring 75%, increasing engagement efficiency.

Data Science Fellow — *Sharpest Minds* — *New York, NY* — **Mar 2021 – Mar 2022**

- Developed predictive models to assess Type 2 diabetes risk using CDC BRFSS data, aiding early diagnosis.
- Processed and cleaned datasets with over 400,000 rows and 275 columns, prioritizing sensitivity to achieve an 83.77% sensitivity rate with logistic regression.
- Identified 25 key predictors of Type 2 diabetes, including BMI, general health, and income level**.**

Data Analyst — *Self-Employed* — *New York, NY* — **Feb 2013 – Feb 2021**

- **Increased weekly avocado orders by 25%** and adjusted deliveries to Thursday, resulting in a **12% sales boost** and reduced stockouts, after identifying a 30% demand spike on Fridays and Saturdays.
- Forecasted peak winter jacket demand in mid-December using ARIMA, increasing stock before Black Friday, optimizing pricing, and reducing post-season orders, resulting in a **15% sales increase and 10% lower unsold stock**.

Education

Master of Statistics & Applied Mathematics — **CUNY Hunter College,** *New York, NY*

Certifications

- **AWS Certified Machine Learning – Specialty** **Mar 2024**
- **AWS Certified Cloud Practitioner** **Feb 2024**
- **SAS Certified Clinical Trials Programmer Using SAS 9** **Dec 2020**
- **SAS Certified Specialist: Forecasting and Optimization Using SAS Viya 3.5** **Sep 2020**
- **SAS Certified Specialist: Machine Learning Using SAS Viya 3.4** **Aug 2020**

Projects

AI System for Loan Processing with Python and Gemini | Medium| Kaggle| Python, Generative AI
Designed a Python-based multi-agent system for loan processing, including KYC, financial data extraction, risk scoring, and transparent underwriting via Retrieval Augmented Generation (RAG). Generated synthetic financial data for privacy-compliant demonstrations and implemented comprehensive financial calculations for realistic loan assessments.

Diet Advisor App | App | Python, Generative AI, Streamlit
Developed a Streamlit application that analyzes meal images, calculates calorie content, and offers nutritional guidance using generative AI.

Fraud Detection| Repo | Python, MLFlow, Streamlit, Jupyter Notebook
Created Built and deployed a machine learning model to detect fraudulent transactions, covering the full workflow from exploratory data analysis to deployment. Integrated MLflow and Streamlit for real-time fraud detection with a user-friendly interface.

Mock-Interview App| App | Python, Generative AI, Streamlit
The application is an interactive Streamlit-based chatbot designed to simulate job interviews. Users provide their background details, including name, experience, and skills, and the chatbot dynamically generates interview questions based on the selected role and company. The chatbot conducts the interview and provides feedback with a score at the end.