Samuel Adetsi

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GitHub | Portfolio | LinkedIn

Summary

Data Science Master's graduate (UBC, '25) with 2+ years engineering experience building production systems for financial services. Proven track record deploying end-to-end solutions from data pipelines to predictive models and interactive dashboards.

Technical Skills

Languages: Python, SQL, R, C++, Java, JavaScript, Bash
ML & AI: Scikit-learn, TensorFlow, PyTorch, XGBoost, LangChain, OpenAI GPT, NLP, Time Series Analysis
Data Engineering: PySpark, Airflow, dbt, Docker, ETL/ELT Pipelines
Cloud & Databases: AWS (S3, Lambda, EC2), PostgreSQL, MongoDB, Snowflake
MLOps & Tools: Git, CI/CD, FastAPI, Flask, MLflow, Dash, Streamlit, Plotly
Data Analysis: EDA, A/B Testing, Statistical Modeling, Feature Engineering, Hypothesis Testing

Education

- **Master of Data Science** Aug 2024 – Jun 2025
  University of British Columbia *Vancouver, BC*
  ***Relevant Coursework**: Machine Learning, Deep Learning, Statistical Inference, Data Visualization*
- **Bachelor of Science in Information Technology** Aug 2017 – Sep 2021
  University of Cape Coast *Cape Coast, Ghana*

Professional Experience

- **Data Scientist** Apr 2025 – Jun 2025
  Brilliant Automation – UBC Master's Capstone Partner *Vancouver, BC*
  - Built AI system that predicts equipment failures 92% accurately, allowing maintenance teams to fix issues before breakdowns occur, preventing costly operational shutdowns in mining operations
  - Automated daily processing of 17,000+ equipment sensor readings, eliminating manual data handling and providing real-time equipment health monitoring for maintenance decisions
  - Created cloud-based analytics dashboard used daily by 6+ maintenance engineers to monitor equipment performance, identify failure patterns, and prioritize maintenance activities
- **Software Engineer** Sep 2021 – Nov 2023
  turntabl (Technology Consultancy) *Ghana & London, UK (Remote)*
  Consulting services for financial technology clients including Morgan Stanley and FINOS Foundation

  Morgan Stanley – Financial Data Engineering (Consultant) *Jan 2022 – Jul 2023*
  - Automated quality checks for 15+ critical financial data feeds, saving 15+ hours monthly in manual verification while maintaining 97% accuracy and ensuring reliable data for trading operations
  - Optimized critical trading systems infrastructure, increasing data processing speed by 15% and reducing delays by 150ms to ensure real-time market data delivery for trading decisions
  - Implemented data quality monitoring for live market data feeds, catching errors before they impacted trading systems and reducing analytics failures by 25%

  FINOS Foundation – Open Source FinTech (Consultant) *Aug 2023 – Nov 2023*
  - Contributed production features to FINOS Perspective and Waltz open-source frameworks used by 10+ major financial institutions including Goldman Sachs and JP Morgan
  - Enhanced data visualization components to improve rendering performance when displaying large financial datasets, enabling faster analysis for end users
  - Delivered features through automated testing pipelines, collaborating with distributed open-source development community across multiple time zones

Projects

- **Financial Transaction RAG System** GitHub
  - Developed AI-powered financial assistant using GPT-4 that analyzes bank statements and answers questions about spending patterns in natural language (e.g., "How much did I spend on groceries last month?")
  - Built automated system to extract and categorize transactions from bank statement PDFs into 10+ spending categories (groceries, entertainment, utilities, etc.) without manual data entry
  - Deployed web application with interactive charts and natural language search, enabling users to ask questions and visualize their spending trends instantly
- **AgroSense: Smart Agriculture Data Platform** GitHub
  - Built automated data collection system gathering 10,000+ daily readings from weather APIs and farm IoT sensors, storing data in cloud databases for agricultural analysis
  - Created automated data transformation workflows that clean and organize raw farm data into analytics-ready datasets with built-in quality checks
  - Developed machine learning model combining weather patterns, soil conditions, and historical harvest data to predict crop yields, helping farmers optimize planting decisions