

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 Forecasting
- 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

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 Project Vancouver, BC
 - Developed predictive maintenance ML systems enabling proactive failure detection to minimize costly unplanned equipment downtime in mining operations
 - Built end-to-end automated data pipeline processing 17,000+ raw sensor readings daily to feed both ML predictions and real-time dashboard
 - Built interactive Dash dashboard on AWS enabling real-time equipment health monitoring and failure pattern analysis for maintenance teams
- **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 data integrity validation across 15+ financial data streams using Python/Bash, reducing manual validation effort by 15+ hours monthly while maintaining 97% accuracy
 - Optimized high-performance C++ data processing infrastructure, achieving 15% throughput improvement and reducing latency by 150ms for real-time market data feeds
 - Performed statistical validation on time-series market data, improving data quality and reducing downstream 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+ financial institutions including Goldman Sachs and JP Morgan
 - Enhanced C++ and JavaScript data visualization components, improving rendering performance for large financial datasets
 - Delivered features through CI/CD pipeline with comprehensive testing, collaborating with distributed open-source community

PROJECTS

- **Financial Transaction RAG System** GitHub
 - Built RAG application with LangChain and GPT-4 processing 100-200 transactions/second with sub-100ms query latency
 - Engineered PDF extraction pipeline with pdfplumber achieving automated semantic categorization across 10+ spending categories
 - Deployed dual-interface system (CLI + Streamlit) with FAISS vector search and interactive Plotly visualizations for natural language financial queries
- **AgroSense: Smart Agriculture Data Platform** GitHub
 - Architected end-to-end Airflow pipeline orchestrating daily API and IoT sensor ingestion (10K+ readings) into PostgreSQL and Snowflake
 - Designed 15+ dbt SQL models across staging, intermediate, and mart layers with automated data quality testing
 - Built ML training dataset combining weather, multi-depth soil (pH, moisture), and crop yield data; trained Random Forest yield prediction model with MLflow tracking