

# 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

## PROFESSIONAL EXPERIENCE

### • Data Scientist

*Brilliant Automation | UBC Master's Capstone Project*

Apr 2025 – Jun 2025  
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

*turntabl (Technology Consultancy) | Ghana & London, UK (Remote)*

Sep 2021 – Nov 2023

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

## EDUCATION

### • Master of Data Science

*University of British Columbia*

Aug 2024 – Jun 2025  
Vancouver, BC

### • Bachelor of Science in Information Technology

*University of Cape Coast*

Aug 2017 – Sep 2021  
Cape Coast, Ghana