Benjamin Imo Uka

AI & Data Engineering | ML Systems, DRL | Databricks, MLOps

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QUALIFICATION SUMMARY

Dynamic and solutions-oriented AI & Data Engineer with robust experience in machine learning, data engineering, MLOps, and cloud-native analytics. Proficient in designing scalable pipelines, deploying production-grade ML systems, and leveraging cutting-edge AI technologies including GNNs, Transformers, RL, and LLMs. Strong background in statistical modeling, big data processing, and decision intelligence.

TECHNICAL SKILLS

➢ **Machine Learning & AI**
- Time Series (TFT, Prophet), Graph Neural Networks, Deep RL, Quantum ML (Basic)
- NLP (LLM, RAG)
- AutoML (Autogluon, H2O.ai, Pycaret)

➢ **Programming & Data Tools**
- Languages: Python, SQL, Pyspark, Spark SQL
- Libraries: Stable-Baselines3, Numpy, Pandas, Gymnasium, scikit-learn, TensorFlow, PyTorch, Hugging Face, RLlib
- Data Visualization: Matplotlib, Seaborn, Streamlit, Power BI, Looker

➢ **Data Engineering and Cloud**
- Big Data: Databricks Lakeflow Declarative Pipelines, Jobs Orchestration, DLT, Structured Streaming, ETL Pipelines, Airflow, Delta Lake, AutoLoader, CDC, SCD2
- Cloud Platforms: DataBricks, GCP (BigQuery, Dataflow), Azure
- Data Warehousing: Databricks SQL, BigQuery
- MLOps: MLflow(Databricks), CI/CD Pipelines, Flask.

PROFESSIONAL EXPERIENCE

➢ **AI & Data Engineer | Miracle Health Recruitment, UK- (Remote - Nov 2024 –Feb 2025)**
- Worked with team to ensure seamless integration of data-driven solutions across operations.
- Built streaming data pipelines using Delta Live Tables and AutoLoader

➢ **Junior Data Scientist | Baknance Technology   (Remote - Feb 2023- April 2024)**
- Developed ML systems using with real time Data.
- Developed a RAG-based chatbot using Hugging Face, OpenAI, integrated with Databricks pipelines for document retrieval.
- Designed end-to-end ETL pipelines for ingesting and transforming financial data.
- Deployed predictive financial models for business forecasting optimization.
- Implemented Delta Lake workflows to enable continuous model training and monitoring.

PROJECT

Finance
- Stock Market Analysis Tool: Built a financial system using void anti-symmetric pattern detection (Live Demo: https://timetion.streamlit.app/)
- Portfolio Optimization System: Designed a DRL-based solution for asset allocation.
- Created a sixfold model for profitable financial market trading, featuring ensemble method, time series, DL, QNN, DRL, etc.

AI/NLP Consultancy & Chatbot Development
- Built and deployed chatbots like benGPT and other advanced conversational LLM models leveraging Hugging Face and OpenAI, achieving real-time customer engagement across multiple platforms.
- Built a multimodal healthcare diagnostic tool using NLP to analyze patient data and give medical recommendations, improving disease prediction accuracy by 35%. (Live Demo: https://benhealthcare.streamlit.app/)

Anomaly Detection
- Built a state of the art Fraud Detection and Risk Modeling system using Databricks, DRL, GNN and transformer models
- Designed real time fraud detection system for E-Commerce and healthcare claims.
- Designed AI driven cyber security threat detection using Network Traffic, user behavior and threat intelligence feeds.

Predictive & Optimization Systems
- Carbon Emission Policy Optimizer: DRL for global CO_2 reduction strategies (Demo: https://ben-co2optimization.streamlit.app/)
- ML modeling: Built a real-time machine learning and data analytics tool, for anomaly detection, clustering, regression and classification improving prediction's accuracy by 25% and leading to a 20% improvement in decision-making efficiency. (Live Demo: https://benjitable-ds.streamlit.app/)

Robotics
- Robot Control Models: Trained agents in custom environments using PPO and SAC.

EDUCATION
- Bachelor in Accountancy   Imo State University, Nigeria (2016)
- National Diploma in Accountancy   Imo State Polytechnic,Nigeria (2012)

CERTIFICATION
- Databricks Generative AI
- Neural Networks (SIMPLI-LEARN)
- Deep Reinforcement Learning (Hugging Face) - In progress