UCHE OKONKWO

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PROFESSIONAL SUMMARY

Data Scientist specializing in applying AI/ML techniques to drive business growth and efficiency. Skilled in Python, SQL, and advanced machine learning algorithms. Experienced in utilizing BI tools like Alteryx or SAP HANA/BW to extract actionable insights from complex datasets.

TECHNICAL SKILLS

Programming Languages & Tools: Python, R, SAS, SQL, Scala, Julia, Git/GitLab
Big Data Technologies: Hadoop, Pig, Hive, Mahout, Apache Spark, PySpark, Kafka, NoSQL databases, Azure Databricks
Statistical & Financial Modeling: A/B Testing, Econometrics, Regression Analysis, Cluster Analysis, Segmentation, Data Mining
Machine Learning & AI Algorithms: Linear & Logistic Regression, XGBoost, Decision Trees, Random Forest, SVM, PCA, Neural Networks, CNN, ResNet, Transformers, Generative AI (Large Language Models), Dataiku, DataRobot
MLOps: CI/CD pipelines (Jenkins, GitLab CI/CD), Docker, Kubernetes, MLflow
Cloud Platforms: AWS (EC2, S3, DynamoDB), Microsoft Azure, GCP, Oracle Cloud Infrastructure (OCI)
Data Visualization & Reporting: Tableau, Power BI, Amazon QuickSight

PROJECTS

Credit Card Fraud Detection with Graph Neural Networks (Work in Progress) *GitHub Link*

- Developing a real-time fraud detection system using **Python, PyTorch Geometric, and GNNs** to identify complex **fraud** patterns. Leveraging NVIDIA's methodologies for scalable solutions to process high-volume transactions and reduce false positives.

Automated Financial Forecasting Pipeline for Quarterly Reporting *GitHub Link*

- Developed and deployed an automated data pipeline using **Apache Airflow**, **DBT, PostgreSQL**, and **AWS S3** to streamline financial data transformation and automation for quarterly reporting. The pipeline optimizes data ingestion from NetSuite, reducing manual effort by 25% and enabling real-time financial analysis.

Real-Time Contextual Retrieval App Using Llama 3.2 *GitHub Link*

- Developed a real-time **RAG** application using **Llama 3.2, Elasticsearch, Python**, and **Hugging Face Transformers**. Optimized for CPU efficiency, the app integrates large-scale document retrieval with dynamic content generation, providing precise and contextually relevant responses in real-time. Improved query response times by 30% through model fine-tuning and data indexing optimizations.

PROFESSIONAL EXPERIENCE

Data Scientist, FinOps | PPL Corporation - Energy and Utilities (S&P 500)   December 2023 –Present

- Leveraged Python, R, TensorFlow, and PyTorch to develop advanced predictive models, resulting in an **8% decrease in operating expenses to $1.76 billion** in 2024.
- Implemented data-driven solutions using Python, R, Spark, and Kafka to reduce average outage duration by **20% and increase grid reliability by 5%.**
- Pioneered the use of Python, R, SQL, and Tableau to analyze operational data, leading to the identification and elimination of inefficiencies, resulting in **savings of at least $175 million by 2026**.
- Utilized Python, R and Julia to develop sophisticated forecasting and control algorithms to increase **renewable energy integration by 10% while maintaining grid stability.**
- Applied **Python, SQL, AWS, GCP, Azure, Power BI,** and **Tableau** to implement data-driven initiatives and promote a data-centric culture, resulting in a 25% increase in data-informed decision-making.

Data Scientist, Associate | PricewaterhouseCoopers LLP -PwC Intelligence   April 2021 – July 2022

- Adopted **SSIS, Informatica, DBT, Python (Pandas, Anaconda)** to build and optimize pipelines processing **500+ terabytes** annually, reducing ingestion time by **30%** and improving accuracy by **15%**.
- Innovated with **Python, R, and ML algorithms to develop 10+ models for 12% better forecasting and 20% cost reduction.**
- Employed **GitHub, Jenkins, and SQL Server** to collaborate with **15+ teams** on **20+ projects**, automating **80%** of quality checks.
- Implemented **AI-driven** approvals using **nCino** and **Python**, automating **60%** of decisions and reducing time by **25%.**
- Harnessed **financial modeling** and **forensic analysis** to lead **12+ projects** generating **$5M+** in savings and revenue, increasing deal success by **15%**.

Business Data Scientist, Economics II | Nigerian Institute of Social and Economic Research   October 2018 – March 2021

- Developed a forward-looking monetary policy framework, **improving** inflation forecasting by 15% and **reducing output volatility by 10%.**
- Instituted advanced econometric models to assess fiscal impacts, **recommending** policies that **reduced the debt-to-GDP ratio by 2%.**

EDUCATION

University of Louisville, Louisville, Kentucky
Master of Science, Business Analytics

WorldQuant University, New Orleans, LA
Master of Science, Financial Engineering

University of Nigeria, Nigeria
Bachelor of Science, Economics