PAUL OKAFOR

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Summary

Data Scientist with over 4 years of experience in machine learning, predictive analytics, and business intelligence for energy optimization and industrial improvements. Proven track record of delivering actionable insights, improving model accuracy, and enhancing efficiency by over 20%. Proficient in Python, R, SQL, TensorFlow, Power BI, and business analytics, with a passion for data-driven problem-solving, informed decision-making, and summarizing findings and takeaways. Experienced in managing relationships with both technical and non-technical partners while balancing attention to detail with swift execution.

Education

University of Oklahoma, USA   Aug 2023 – Present
Master of Science (MS), Data Science and Analytics

University of Port Harcourt, Nigeria   Nov 2018 – Nov 2019
Master of Science (MS), Petroleum Engineering and Project Development

University of Lagos, Nigeria   Oct 2012 – Dec 2016
Bachelor of Science (BS), Petroleum and Gas Engineering

Technical Skills and Expertise

- **Data Science and Analytics**: Data analysis, A/B testing, experimental design, causal inference, quantitative skills, data visualization (Matplotlib, Seaborn, Power BI, Tableau, Looker, Mixpanel), statistical and predictive modeling.
- **Machine Learning and AI**: TensorFlow, PyTorch, Scikit-Learn, HuggingFace, OpenAI, Amazon Web Services (AWS); development of supervised and unsupervised learning models. Familiarity with computational chemistry and experience analyzing user-facing GenAI applications.
- **Programming and Data Tools**: Python (Pandas, NumPy), C++, R, SQL (advanced SQL coding skills), Unix/Linux systems.
- **Computer Vision and Image Processing**: OpenCV, YOLO, Detectron2 for image analysis and object detection.
- **Data Management and Cloud Computing**: Data architecture, governance, and security; skilled in databases, big data platforms (Databricks, Apache Spark), and cloud computing (AWS, Azure, GCP) for scalable analytics and storage.
- **Deep Learning and NLP**: Neural networks, experience with GPT, BERT, training and deploying large language models (LLM). Experience with high-performance compute clusters for large-scale training tasks.
- **Project Management and Collaboration**: Git, GitHub, Jupyter Notebook; Agile and Scrum methodologies. Effective communication and decision-making skills to tackle sophisticated business problems across multiple teams.
- **Storytelling and Business Insights**: Strong storytelling ability to distill hard-to-find insights into compelling data stories; experienced in extracting and summarizing insights to support strategic decisions. Exposure to problem-solving efforts in medicinal or pharmaceutical chemistry and drug-design.

Professional Experience

University of Oklahoma, USA   August 2023 – Present
Graduate Research Assistant

- Conducted research and developed cost-sensitive online learning models for control chart pattern recognition, achieving a high G-Mean of 67% across abnormal patterns in industrial systems. Improved real-time monitoring, anomaly detection, and decision-making while reducing misclassification costs. *[Paper forthcoming]*
- Applied interpretable machine learning models to optimize recombinant protein titer production in *Escherichia Coli* fermentations, enhancing biopharmaceutical manufacturing processes and increasing production efficiency.

Backyard Innovations Limited, Nigeria   September 2020 – July 2023
Data Scientist

- Led development of predictive analytics for smart home energy systems using advanced machine learning techniques (e.g., Prophet) for hourly energy consumption forecasting, resulting in a 20% improvement in system efficiency.
- Analyzed and modeled weather and energy data from smart homes to identify optimization opportunities, achieving operational cost savings and improved energy usage patterns.

Fortizo Energy Resources Limited, Nigeria   February 2020 – July 2020
Technical Sales Engineer

- Created technical bids and proposals, leading to a 30% increase in contract win rate and improved client satisfaction.
- Leveraged technical expertise in process designs, equipment lists, and heat/material balances to enhance deliverable accuracy and efficiency, while cultivating strong client relationships to drive sales targets and revenue growth.