CHUKWUMA ONWUKA

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CAREER SUMMARY

High-performing leader in digital transformation, skilled in applying Generative AI, Data Science and Robotics Process Automation to solve diverse business challenges.

My expertise in Artificial Intelligence and RPA has contributed to optimization and automation of over 30 business processes, spanning 10+ major projects in West Africa.

TECHNICAL SKILLS

Generative AI: Proven experience with Langchain, OpenAI models, HuggingFace models, LLMs, Vector Databases (Pinecone, Chroma, Faiss, Weaviate), and Prompt Engineering

Robotics Process Automation: Automating complex business processes with UI Path, BluePrism and Power Automate.

Machine Learning: Practical experience with PyTorch, TensorFlow, OpenCV, Scikit-Learn, SciPy, XGBoost, and more, building predictive models and recommendation systems.

Data Visualization: Skilled in storytelling and dashboarding with Power BI, Excel, Seaborn and Matplotlib to communicate insights effectively.

Software Engineering: Firm grasp of Backend and API development with Django Rest Framework, Docker and Kubernetes. Familiarity with Git and Azure cloud.

PROFESSIONAL EXPERIENCE

ERNST AND YOUNG   January 2019 – Present
Assistant Manager - Data & Analytics Consulting:
Managed and deployed ground-breaking digital transformation projects for multiple clients in West Africa. Leveraged advanced machine learning engineering solutions to drive innovation and value for clients.

LLM-Enabled Assistant for Regulatory Compliance
- Enhanced TAT over 200% by deploying an LLM-enabled assistant to streamline compliance research, automate document analysis, and provide real-time, accurate regulatory insights.
- Skills Used: Python, LangChain, Pinecone, LLMs (Open AI and HuggingFace)

Fraud Detection Solution for Transaction Security
- Reduced False Positives 20% by spearheading a high-impact project, developing a fraud detection machine learning model to identify suspicious transactions for a leading commercial bank.
- Skills Used: Python, SQL, PyTorch, ScikitLearn, Azure ML

Recommendation Engine to Support Marketing Strategy
- Increased User Engagement >25% by leading the deployment of a recommendation system, to predict customer interests from a list of banking products. Enhanced conversion rates by 20%, enhancing marketing efficiency.
- Improved Leadership trust through compelling storytelling and dashboarding.
- Skills Used: Python, PowerBI, SQL, ScikitLearn, PyTorch

Workplace Analytics Engineering to Improve Employee Performance
- Improved employee performance and satisfaction in a remote working system, by discovering employee pain points through quantitative and qualitative analysis.
- Skills Used: Python, SQL, PyTorch, TensorFlow, ScikitLearn, PowerBI

Process Automation for a Tier-1 Digital Bank
- Reduced TAT circa 80% by leading the automation of 25+ manual, repetitive, business processes for a Tier-1 digital bank. Improved process efficiency and customer satisfaction.
- Skills Used: UiPath, BluePrism, OCR engines, Visual Basic

ERNST AND YOUNG   February 2023 – Present
Volunteer Data Science Mentor:
- Mentored data science interns, providing guidance, support, and code review sessions.
- Facilitated the adoption of new technologies by assigning tasks and mini projects.

EDUCATION

Bachelor of Technology in Electrical Engineering
Rivers State University of Science and Technology,
Graduation Award: Valedictorian

PERSONAL PROJECTS

Project Name: PDF Chatbot with ML-Enabled Ticket Routing
Project Description: Developed an LLM-enabled chatbot designed to streamline information retrieval from PDF documents and provide efficient ML-based departmental routing for user inquiries.
Technical Stack Used: Langchain, HuggingFace Models, Chroma DB, SVM, Python

Project Name: Real-Time Social Distance Monitoring System
Project Description: Developed a Machine Learning model to continuously monitor the distance between individuals in an incoming video feed and flag/escalate violations.
Technical Stack Used: OpenCV, SciPy, Keras, TensorFlow, Matplotlib

Project Name: Object Tracking using OpenCV
Project Description: Developed a Machine Learning model to track a specific-coloured object using computer vision techniques, and provide directions based on the position of the tracked object.
Technical Stack Used: Python OpenCV, Jupyter

Project Name: Multi-Vendor Restaurant Marketplace
Project Description: Developed a fully featured restaurant marketplace, incorporating user and vendor registration, Cart functionalities, Location-based search, and Payment gateways.
Technical Stack Used: Python, Django, PostgreSQL, HTML, CSS, Bootstrap