

# CHUKWUMA ONWUKA

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## CAREER SUMMARY

High-performing leader in digital transformation, skilled at applying advanced machine learning techniques to solve complex business challenges.

My expertise in developing and deploying state-of-the-art machine learning models has contributed to optimization of over 30 business processes, spanning 7+ major projects in West Africa.

## TECHNICAL SKILLS

**Data Analytics:** Extracting insights with Python, SQL, NumPy, Pandas, Spark, and advanced statistical analysis.

**Machine Learning:** Practical experience with Generative AI, LLMs, Databricks, PyTorch, TensorFlow, Scikit-Learn, LangChain, Spacy, 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, DRF, Docker and Kubernetes. Familiarity with Git and Azure cloud.

## PROFESSIONAL EXPERIENCE

### ERNST AND YOUNG

January 2019 – Present

Assistant Manager - Data & Analytics Consulting:

Completed 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, Weaviate, LLMs, GPT Models

#### 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 Databricks

#### Recommendation Engine to Support Marketing Strategy

- Increased User Engagement >25% by deploying 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, PowerBI

#### 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 Financial Service Provider

- Reduced TAT circa 80% by leading the automation of 25+ manual, repetitive, business processes for a Tier-1 digital bank. Improved process efficiency and employee 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

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

## PERSONAL PROJECTS

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Project Name: AI-Powered Legal Document Assistant

Project Description: Developed an LLM-enabled chatbot to assist lawyers in the analysis and interpretation of legal documents.

Technical Stack Used: LangChain, Python, Faiss, GPT-3

Project Name: 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: Sentiment Analysis on Customer Feedback

Project Description: Developed a Machine Learning model to categorize customer feedback on product usage and display critically negative comments for immediate attention.

Technical Stack Used: PyTorch, Spacy, NLTK, GloVe, ScikitLearn, Jupyter Notebook

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