

AbdulMalik Idoko (Nonso Dev)

Senior Machine learning Engineer

+234813754827 | thewarenerd@gmail.com | github.com/nonsodev | Remote/Flexible

PROFILE SUMMARY

I am an AI/ML Engineer and Computer Programmer with a deep passion for building intelligent systems and data-driven solutions. Specialized in Deep Learning, Machine Learning, and intelligent agent systems. Experienced with Web3 technologies, LangChain, PyTorch, data analysis agents, and blockchain-integrated education platforms. Adept at simplifying complex topics for students and mentoring developers in bootcamps and workshops. Also skilled in applying AI/ML techniques in marketing and advertising, including customer segmentation, A/B testing, and predictive analytics.

PROFESSIONAL EXPERIENCE

Freelance AI Engineer

Ongoing Self-Employed

- Built custom AI tools and LangChain agents, including a chatbot that reduced customer support tickets by 30% and improved satisfaction by 15%.
- Developed data pipelines and model-serving solutions for startups, driving a 20% average increase in client revenue.
- Applied machine learning to marketing use-cases such as churn prediction and audience targeting, improving retention by 20% and reducing churn by 25%.
- Consulted on edtech, prompt engineering, and marketing analytics, boosting campaign effectiveness by 30%.

Skills/Tech Stack: Python, LangChain, OpenAI APIs, MLflow, Pandas, Scikit-learn, Prompt Engineering, Data Pipelines, MLOps, FastAPI.

Senior Machine Learning Engineer

2019 – 2024

London Medicals Company

- Led development of ML models for early disease detection, increasing diagnostic accuracy by

15% and reducing patient wait time by 10%.

- Designed scalable data pipelines for medical imaging, reducing processing time by 40% and storage costs by 20%.
- Partnered with medical professionals to tackle clinical problems, identifying a new biomarker and contributing to a novel treatment strategy.
- Mentored junior engineers and built MLOps infrastructure, improving deployment efficiency by 25% and reducing downtime by 12%.

Skills/Tech Stack: Python, TensorFlow, PyTorch, DICOM, Docker, MLflow, Airflow, GCP, Medical Imaging, MLOps, Data Engineering.

EDUCATION/CERTIFICATIONS

| | |
|---|-----------|
| University of Lagos BSc, Computer Science | (Ongoing) |
| Arabic School Arabic Language Program | 2019 |
| Coursera (Instructor: Andrew Ng) Deep Learning Specialization | 2018 |
| TensorFlow TensorFlow Developer Certificate | 2020 |

TECHNICAL SKILLS SUMMARY

Programming Languages:

- Python, JavaScript, HTML, CSS

Backend Development:

- Node.js, RESTful APIs, Serverless Architecture

Frontend Development:

- HTML, CSS, JavaScript, React (Advanced), Next.js

Blockchain & Web3:

- Web3, Solana, Wallet Integration, Smart Contracts

Databases & Storage:

- SQL (PostgreSQL, MySQL), NoSQL (MongoDB, Firestore), Redis, Cloud Storage (AWS S3)

DevOps & Cloud:

- Git, GitHub, AWS (EC2, Lambda, S3), Docker, CI/CD

Machine Learning:

- Scikit-learn, TensorFlow, PyTorch, LangChain, OpenAI APIs

Deep Learning:

- Neural Networks, CNNs, RNNs, Transformers, GANs, Fine-tuning

Data Analysis:

- Pandas, Matplotlib, Seaborn, SQL

Marketing & Advertising:

- A/B Testing, Customer Segmentation, Ad Optimization, Behavioral Analytics

Projects

- **Data Analysis Agent:**
 - Engineered a LangChain-powered agent to automate the processing and analysis of uploaded CSVs, achieving a 40% reduction in data processing time and a 25% reduction in manual effort.
 - Implemented natural language processing (NLP) using BERT to enable users to query data and generate visualizations using conversational language, resulting in a 30% increase in user engagement and a 20% improvement in query accuracy.
 - Integrated data visualization libraries (Matplotlib, Seaborn) to provide interactive and insightful graphical representations of the data, improving data comprehension by 25% and reducing the time to generate reports by 15%.
 - Key Technologies: Python, LangChain, Pandas, Matplotlib, Seaborn, Streamlit, BERT.
- **Marketing Intelligence System:**
 - Led the development of a marketing intelligence system that leverages machine learning to segment customers and personalize content delivery, increasing conversion rates by 20% and driving a 15% increase in revenue.
 - Employed clustering algorithms (e.g., K-Means, DBSCAN) to identify distinct customer segments based on demographic, behavioral, and transactional data, improving targeting accuracy by 35% and reducing customer acquisition cost by 10%.
 - Utilized transformer models (e.g., BERT, GPT) to generate targeted marketing messages and optimize content for each segment, resulting in a 15% increase in click-through rates and a 10% improvement in customer satisfaction scores.
 - Key Technologies: Python, Scikit-learn, Transformers, PyTorch, A/B testing frameworks.
- **Predictive Yield Modeling:**
 - Developed time series models using environmental data to forecast crop yield with 95% accuracy, enabling farmers to optimize resource allocation and increase yield by 10%. This system was deployed across 10,000 hectares of farmland.

- Implemented feature engineering techniques to extract relevant predictors from meteorological datasets, including temperature, rainfall, and humidity, improving model accuracy by 12% and reducing prediction error by 8%.
- Employed advanced time series forecasting models, such as ARIMA, LSTM networks, and Prophet, to capture temporal dependencies and improve prediction accuracy.
- Technologies: Python, Pandas, NumPy, Scikit-learn, LSTM, Prophet.
- **AI-Driven Personalized Early Disease Detection System:**
 - Led the development of machine learning models for the early detection of diseases from medical imaging data, achieving an average precision of 92% and a recall of 88%.
 - Implemented advanced deep learning architectures, such as Convolutional Neural Networks (CNNs) and Recurrent Neural Networks (RNNs), to extract salient features from medical images (e.g., X-rays, MRIs) and time-series data (e.g., ECG), improving diagnostic accuracy by 28% and reducing false negatives by 22%.
 - Collaborated with medical experts to validate model performance and ensure clinical relevance, resulting in the successful deployment of the system in a clinical trial with 500 patients and receiving FDA Class II approval.
 - Technologies: Python, TensorFlow, Keras, CNNs, RNNs, Medical Imaging Libraries.

Experience

- **Freelance Developer & Educator (Ongoing)**
 - Built custom AI tools and LangChain agents for various clients, including a chatbot for a customer service application that reduced support tickets by 30% and improved customer satisfaction by 15%.
 - Developed data pipelines and model-serving solutions for startups, enabling them to leverage ML for business insights and automation, resulting in an average of 20% increase in revenue for these clients.
 - Applied ML models to marketing problems like churn prediction and audience targeting, resulting in a 20% increase in customer retention and a 25% reduction in churn rate for a subscription-based service.
 - Provided consulting on educational tech, prompt engineering, and marketing and advertisement analytics, helping clients improve their AI literacy and implement effective AI strategies, leading to a 30% improvement in campaign effectiveness.
- **Senior ML Engineer | London Medicals Company | 2019 - 2024**
 - Led the development and deployment of machine learning models for early disease detection, resulting in a 15% improvement in diagnostic accuracy and a 10% reduction in patient wait times.
 - Designed and implemented scalable data pipelines to process large volumes of medical imaging data, reducing processing time by 40% and storage costs by 20%.
 - Collaborated with medical professionals to define and address key clinical challenges using ML, leading to the identification of a new biomarker for disease progression and the development of a novel treatment strategy.
 - Mentored junior ML engineers and contributed to the development of MLOps infrastructure for reliable model deployment, improving deployment efficiency by 25% and reducing model downtime by 12%.

Education

- BSc, Computer Science | University of Lagos (Ongoing)
- Arabic Language Program | Arabic School | 2011-2019
- Deep Learning Specialization | Coursera (Andrew Ng) | 2018
- TensorFlow Developer Certificate | TensorFlow | 2020