Adejo Ojomideju Gideon

+234-701-603-5694 — ojomideju2003@gmail.com — linkedin.com/in/deju-adejo —
github.com/DejusDevspace — x.com/adejo_deju — dejuadejo.vercel.app

PROFESSIONAL SUMMARY

Mechatronics Engineering graduate with hands-on experience in AI/ML, data-driven applications, and full-stack development. Skilled in building intelligent systems that leverage machine learning, automation, and user-friendly interfaces. Proven track record of deploying end-to-end ML solutions from model development to production. Seeking opportunities in AI/ML engineering and data science.

EDUCATION

Bowen University, Osun State, Iwo
Bachelor of Engineering (B.Eng) in Mechatronics Engineering — Nov 2020 – Nov 2025
CGPA: 4.3/5.0 (Second Class Upper)

WORK EXPERIENCE

Generative AI & Data Science Intern | Remote — Sep 2024 – Present
FlexiSAF Edusoft Limited

- Developed ML systems using ensemble learning, deep learning (PyTorch, TensorFlow), and reinforcement learning, contributing optimized feature engineering and model evaluation workflows.
- Participated in collaborative projects focused on real-world AI applications including NLP, time series forecasting, and big data processing with Apache Spark.
- Applied ethical and explainable AI techniques across the full ML development lifecycle, ensuring transparency and fairness in model predictions.

Machine Learning Intern | Abuja, Nigeria — Feb 2024 – Sep 2024
National Center for Artificial Intelligence and Robotics (NCAIR)

- Collaborated with teams to build and test ML models for robotics and data science applications, improving system performance through optimized preprocessing and model evaluation workflows.
- Participated in real-world AI projects that involved training and deployment of models on edge devices using edge computing techniques.
- Contributed to robotics integration projects, applying machine learning algorithms to enhance the capabilities of the autonomous system.

Mechatronics Engineering Intern | Abuja, Nigeria — Jun 2023 – Sep 2023
National Space Research and Development Agency (NASRDA)

- Gained practical experience in embedded systems and mechatronics processes, including robotics integration and system design.
- Applied fundamentals of electronics and worked with various electronic components in real-world embedded systems applications.
- Learned about mechatronics applications in space research and satellite system development.

Data Entry Specialist | Remote — Mar 2023
virtualousPRO

- Managed and organized large volumes of structured data using spreadsheets, ensuring high accuracy and consistency.
- Increased data reliability by 17% through careful validation and correction of data inconsistencies.
- Maintained productivity under tight deadlines, consistently meeting targets without compromising data integrity.

PROJECTS

FPL Gaffer | Python, LangGraph, LangChain, FastAPI, WhatsApp API, TavilyAPI, GroqAPI *Aug 2025*
https://github.com/DejusDevspace/fpl-gaffer

- Built an autonomous AI agent system using LangGraph for Fantasy Premier League team management, deployed on WhatsApp with FastAPI webhook infrastructure for real-time bidirectional communication.
- Integrated official FPL API and web search tools, enabling agent to autonomously retrieve player statistics, manager team information, fixtures, and real-time football news.
- Engineered self-validating workflow with automated hallucination detection and corrective loops, reducing inaccurate recommendations by over 80% through intelligent tool re-execution and data verification.
- Architected agentic workflows with state management for complex decision-making, and memory management, providing personalized transfer recommendations and strategic insights.

Malaria Parasite Stage Classification using GAN-Enhanced Deep Learning | *Mar 2025*
Python, TensorFlow, PyTorch, Streamlit

- Developed end-to-end deep learning pipeline combining GAN-based data augmentation, VGG16 feature extraction, and LSTM temporal modeling for malaria diagnosis from blood smear images.
- Improved model robustness by generating synthetic balanced datasets using trained DCGAN, achieving 14%+ accuracy gains over baseline CNN models.
- Implemented Streamlit interface for real-time image upload and stage prediction with confidence scores.

Personal Learning Assistant | Python, LangChain, FAISS, GroqAPI, Streamlit *Aug 2024*
https://github.com/DejusDevspace/Personal-Leaning-Assistant-Q-A-Conversational-Chatbot

- Built personal AI assistant for academic learning with note uploads and YouTube video summarization capabilities.
- Integrated semantic routing to handle multiple tasks including Q&A, summarization, and contextual document chat.
- Designed and implemented RAG pipeline using FAISS vector database for efficient data storage and retrieval with Streamlit interface.

XIAO ESP32S3 Image Classification | C++, Python, TensorFlow, Keras, ESP32S3, FastAPI, React.js *Jun 2025*
https://github.com/DejusDevspace/seeed-inference-api

- Trained and optimized computer vision model using transfer learning from MobileNetV2 with quantization for edge deployment, achieving 98.3% test accuracy.
- Programmed ESP32-S3 microcontroller firmware with OV2640 camera integration, WiFi connectivty, and automated 15-second interval image capture with HTTP communication.
- Built RESTful API with FastAPI and created responsive React dashboard with drag-and-drop upload, real-time prediction visualization, and confidence scoring.

Invoice Extraction RAG App | Python, Pandas, LangChain, Streamlit *Jul 2024*
https://github.com/DejusDevspace/Invoice-Extraction-RAG-application

- Developed LLM-powered RAG pipeline to automate invoice data extraction using LangChain with Google Generative AI API.
- Designed prompt-engineered templates to parse unstructured PDFs and map values into structured data with CSV export capability.
- Delivered a solution that reduces manual data entry time and enhances reliability in financial workflows.

Image Captioning with Attention | Python, PyTorch, TensorBoard, Streamlit *Oct 2024*
https://github.com/DejusDevspace/image-captioning

- Developed end-to-end image captioning system using encoder-decoder architecture with PyTorch, achieving accurate caption generation on 8,000+ images.
- Implemented CNN encoder using transfer learning from pretrained ResNet50 for feature extraction and LSTM decoder with teacher forcing for sequential text generation.
- Built custom data pipeline with vocabulary management and deployed model with real-time inference pipeline using Streamlit.

Beans Disease Detection Model | Python, TensorFlow, Keras, Flask, RaspberryPi *Jun 2024*
https://github.com/DejusDevspace/bean-disease-classification

- Developed CNN model for classifying bean leaf diseases using transfer learning and custom ensembles, achieving 90%+ accuracy on training and test sets.
- Applied data preprocessing, augmentation, and feature extraction techniques to enhance model performance and robustness.
- Deployed model via Flask API and on RaspberryPi edge device for real-time inference in agricultural field conditions.

Phishing URL Detector CLI Tool | Python, Scikit-learn, Tldextract, Pandas, NumPy *Jun 2025*
https://github.com/DejusDevspace/phishing-detector-ml-cli-toolkit

- Built machine learning-driven phishing detection tool with engineered feature extraction pipeline, achieving 90.5% test accuracy.
- Implemented full-featured CLI supporting single URL prediction, batch analysis, and interactive mode for debugging and comparison.

BAES Elections WebApp | React.js, Node.js (Express), PostgreSQL (Supabase), Tailwindcss *Dec 2024*
https://github.com/DejusDevspace/baes-election-website

- Built secure full-stack web application for student voting during Bowen Association of Engineering Students elections.
- Implemented JWT authentication to ensure voter eligibility and election integrity with real-time polling engagement features.

CV Summary Generator | Python, LangChain, Google Generative AI (Gemini), Streamlit *Jul 2024*
https://github.com/DejusDevspace/CV-upload-CV-summarize-RAG-app

- Built an intelligent resume summarizer that processes pdf and docx files using Google Gemini via LangChain.
- Designed prompt templates and refine summarization chains to extract structured insights from resumes.
- Implemented real-time streaming output and secure file handling in Streamlit for an interactive user experience.

LEADERSHIP & ACTIVITIES

Python Programming Tutor | Iwo, Nigeria 2024 – 2025
Engineering Club, Bowen University

- Taught "Python for Engineering Innovation" course to engineering students, covering programming fundamentals and practical applications.
- Developed curriculum and hands-on projects to help students apply Python to solve engineering problems.

Hackathon Participant | Remote Jun 2024
PipeOps (HackOps 1.0)

- Participated in a high-pressure hackathon, leading the development of innovative travel and tourism solutions through effective teamwork and time management.

TECHNICAL SKILLS

Languages: Python (ML/AI, Automation, Data Science), C++ (IoT & Robotics), JavaScript (ES6+, React), TypeScript, SQL, HTML & CSS (responsive)

ML/AI & Data Science: PyTorch, TensorFlow, Keras, Scikit-learn, LangChain, LangGraph, LangSmith, HuggingFace, XGBoost, LightGBM, Pandas, NumPy, Matplotlib, Seaborn, Apache Spark

Web & Backend: React.js, FastAPI, Flask, Node.js (Express.js), Firebase, Supabase

DevOps & Tools: Git, Docker, Linux, Vercel, Render, Streamlit, Google Colab, Postman, VS Code, PyCharm, Jupyter Notebook, Arduino IDE

IoT & Embedded: Arduino, RaspberryPi, ESP32, MQTT

Databases: PostgreSQL, SQLite, FAISS, Chroma, Pinecone, Qdrant