Emmanuel Yakubu

Software Engineer | ML and AI

Github
Portfolio
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Relevant Experience

Machine Learning Engineer (Contract) – Smartel – Mar 2025 – Apr 2025

- Architected and deployed a CNN-based disease detection system using TensorFlow that analyzed 10,000+ plant images with 98% accuracy
- Engineered an automated image preprocessing pipeline that reduced model training time by 40% while improving feature extraction
- Developed a scalable FastAPI microservice that handled 200+ concurrent requests, enabling real-time disease diagnosis via mobile app integration

Projects

TenGo – Full-Stack Food Delivery Platform

- Engineered a responsive React.js frontend and Node.js/Express backend for food ordering and delivery management
- Implemented secure payment processing and RESTful API integration for real-time order tracking
- Utilized PostgreSQL for database management and Docker for containerization

CropBot – Agricultural AI Assistant for Crop Management

- Developed an intelligent agricultural chatbot using Python, TensorFlow and BERT embeddings for accurate recognition of crop disease queries
- Fine-tuned NLP models on specialized agricultural terminology, achieving 95%+ accuracy in disease identification from farmer descriptions
- Built an interactive web interface using Streamlit that enabled real-time disease diagnosis and delivered context-aware treatment recommendations

Credit Card Loan Verification System

- Built a predictive machine learning model using scikit-learn for automated loan approval decisions
- Performed data preprocessing, feature engineering, and model evaluation using pandas and NumPy
- Deployed application with Flask backend, achieving 85% prediction accuracy on test dataset

Leadership and Activities

Google Developer Student Clubs (GDSC) - Member

- Developed web applications and ML models using React.js, TensorFlow, and Google Cloud Platform
- Contributed to open-source projects and participated in hackathons and code reviews

ALU Robotics Club - Member

- Programmed autonomous robots using Python and C++ for university-level competitions
- Designed embedded systems with Arduino and Raspberry Pi for sensor integration and real-time control

ALU Chess Club - Member

- Organized chess tournaments and applied algorithmic thinking to improve competitive performance
- Conducted training sessions on strategic planning and tactical problem-solving

Edcucation

AFRICAN LEADERSHIP UNIVERSITY
B.SC - Computer Science: Software Engineering
(Python, SQL, Bash, HTML, CSS, JavaScript & C)

Proficient Skills

Programming languages
Python, JavaScript, R, HTML/CSS, MATLAB, SQL

Frameworks & Libraries
TensorFlow, PyTorch, Flask, Django, React.js, Node.js, Flutter, pandas, scikit-learn

Platform
Linux, Windows, Android, IOS

Tools
Git, VS Code, Vim, Docker, Heroku, Google Colab, Anaconda, Figma

Abilities

Digital fluency, design thinking, teamwork, resilience, adaptability, efficiency, creativity, research, debugging, testing, collaboration, time management, Strong communication, Active listening, Negotiation, Data analysis and Interpretation, Market Analysis

Interests

Chess, Basketball, Music, Robotics, Problem Solving & Religion