# OYEBAMIJI, MUSTAPHA OYETUNDE

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#### **SKILLS**

- Python(Flask, Django), Nodejs(Express), JavaScript, Golang, Git, C/C++, SQL(MySQL, PostgreSQL), MongoDB, DyanmoDB, Shell Scripting.
- Linux, Nginx, Haproxy, Docker, CSS, HTML, Pandas, Numpy, Sci kit-Learn and PyTorch.
- Operating System(Linux), Microservices, Backend, Agile.

## **Work Experience**

## **Backend Engineer** | Peeriva January 2025 – April 2025

- Notification Service: Built a scalable notification system using Redis as a message listener, processing messages from micro-services and frontend requests. Implemented Amazon SQS for queue-based delivery and enforced rate limiting for controlled distribution.
- Activity Service: Developed a user activity analytics pipeline, leveraging Amazon DynamoDB for efficient storage and retrieval. The service supports user insights, admin monitoring, and machine learning model training.
- Search Service: Designed a comprehensive search architecture spanning multiple databases, integrating AWS OpenSearch for efficient indexing and retrieval across diverse data sources.
- Optimized system performance with Redis caching, lazy loading, and distributed data processing.
- Worked extensively with Django, Redis, PostgreSQL, AWS DynamoDB, AWS OpenSearch, AWS Amazon SQS, and microservices architecture.

#### NGREEN LOGISTICS: Backend Developer

- Designed, developed, and deployed the backend of the logistics application using the MERN stack (MongoDB, Express.js, Node.js).
- Built RESTful APIs to manage core functionalities such as user authentication, shipment tracking, and order management.
- Integrated error handling, logging mechanisms, and security best practices (e.g., JWT authentication and input validation).
- > Implemented database schema and optimized queries to ensure efficient handling of large datasets.
- Collaborated with clients to refine requirements and iterated on feedback to deliver a user-focused solution.

#### APIENG: Backend Developer Intern

- Contributed to the development of an API monitoring system designed to measure the energy consumption of each endpoint using Go (Golang).
- Collaborated with a team to implement scalable solutions, focusing on micro-services architecture and API design.

#### HelpBot(ALX SE FINAL PROJECT): Backend Developer

- Developed the backend for HelpBot, an Al-powered application that analyzes PDF documents and answers user queries based on the content.
- > Built the backend using Node.js, implementing features for PDF parsing, natural language processing(using openai api), and efficient guery-response handling.
- Integrated the backend with the frontend (built with Vite) to enable seamless interaction and dynamic responses.

#### TIME MINDER(ALX SE): FullStack Developer

- Designed and developed Time Minder, a project management software for scheduling and managing tasks, from the ground up.
- > Built the application using Flask for the backend, MySQL for database and HTML, CSS, and JavaScript for the frontend, ensuring a responsive and user-friendly interface.
- > Deployed the application using Nginx and HAProxy, enabling load balancing and high availability.
- Authored comprehensive project documentation, including user manuals and system workflows, to support maintenance and scalability.
- Delivered a fully functional and robust system as part of the ALX Program, showcasing a balance of development and deployment expertise.

## Machine Learning Engineer | Personal Projects

January 2024 - Present

- ➤ Brain Tumor Detection: Built a custom convolutional neural network (CNN) and fine-tuned a ResNet model to classify brain tumors from MRI images. Focused on image preprocessing, model evaluation, and generalization. I also created a simple web app to demonstrate the model's predictions in real time.

  GitHub Repo | Medium Article
- Fine-tuning GPT-2 for Sentiment Analysis: Rebuilt the GPT-2 architecture and trained it on a custom dataset to perform sentiment classification. Worked on tokenizer setup, model fine-tuning, and adapting the LLM for downstream tasks.

GitHub Repo

Fraud Detection System: Developed a machine learning model to flag potentially fraudulent financial transactions using patterns in monetary data. Deployed a small web interface to simulate testing and prediction workflows.

GitHub Repo

Facial Emotion Recognition: Built a model that detects human emotions from facial images. The solution includes a simple web app where users can upload photos and get predictions like happy, sad, angry, or surprised.

GitHub Repo

Most of these projects were developed using Python, PyTorch, TensorFlow, scikit-learn, OpenCV, and HuggingFace Transformers, with web deployment done using Flask or Streamlit. They reflect my interest in solving real-world problems with practical ML applications.

### **Education**

Federal University of Technology, Akure, Nigeria

B. ENG, Computer Engineering

(2022-Present)

Relevant Course Work: Discrete Mathematics, Data Structure and Algorithm, Python Programming, Programming in C, Visual Basic

## **Professional Training**

- ALX Software Engineering, ALX AFRICA <u>CERTIFICATE</u>
- JavaScript Data Štructure and Algorithm FreeCodeCamp, ORG. 2022 CERTIFICATE

### PUBLICATIONS(ARTICLES)

- Brain Tumor Detection using MRI Scanned Images.
- Processes on Linux
- What Happens When You Press Google.com and press enter on a browser

#### PROFESSIONAL MEMBERSHIP

- Skill Development Lead, Google Developer Group on Campus(GDGOnCampus), FUTA (2024/2025)
- ➤ Boot-camp Lead, Google Developer Student Club(GDSC), FUTA (2023/2024)