

MUSTAPHA OYEBAMIJI

Fourth-Year Undergraduate

Department of Computer Engineering | Federal University of Technology, Akure

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EDUCATION

Akure, Ondo State, Nigeria

Expected graduation: 2027

Federal University of Technology

Bachelor of Engineering in Computer Engineering (4.65/5.00)

Relevant Courses: Algorithms and Data Structures, Operating Systems, Database Systems, Web Development, Software Development Techniques, Assembly Language.

ACHIEVEMENTS AND SCHOLARSHIP

- Intelligent Planet Hackathon (KFUPM, SAUDI ARABIA) – Top 25 Finalist**
Selected among 25 teams from 2000+ global applications to present EcoFlow AI, an intelligent energy monitoring platform designed to analyze and optimize energy consumption through real-time data insights. (Saudi Arabia)
- Squadco Hackathon – 8th place out of 108 teams**
Developed SSFH, a platform for automating and saving school fees for students, including backend services to handle transactions efficiently.
- Wema Bank Hackathon – 2nd place**
Built TrustLock, a secure gateway for remote companies to monitor and authenticate employees. Implemented digital authentication and authorization with user priority levels, plus location and connection tracking for enhanced security.
- Dean’s List**, Recognized for outstanding academic performance in the last 7 semesters.
- UTME 2021** – Score: 329 – Ranked in the top 1% in Nigeria.

RELEVANT EXPERIENCE

FullStack Engineer, SchoolTry,
Switzerland (Edutech)

September 2025 - present

- Architected a platform-wide audit logging and activity tracking system using Laravel, capturing sensitive administrative actions such as result modifications, payment remittance, and academic record updates, ensuring full traceability across 60+ schools in 10 countries.
- Led the migration from a legacy permission system to a team-scoped RBAC architecture, writing and executing large-scale database migration scripts that safely transitioned 60+ institutions to the new model with zero downtime.
- Developed and maintained full-stack platform features using Laravel and Vue.js, supporting core academic and financial workflows including result management, institutional administration, and payment reconciliation.

Backend Engineering Lead
(Contract) Nexora

January 2025 - till now

- Led backend architecture and API development for multiple client platforms using Node.js (Express.js), designing scalable services capable of supporting high-concurrency web applications.
- Engineered secure payment pipelines through Paystack API integration, enabling automated transaction processing and reliable financial reconciliation across client applications.
- Developed a blockchain asset verification platform using the Moralis API, implementing real-time token validation and on-chain data verification mechanisms.

Backend Engineer, Peeriva

January 2025 - April 2025

- Engineered a real-time Notification Service using Redis and Amazon SQS, supporting 10K+ messages/day with 99.9% delivery reliability through rate limiting and queue prioritization.
- Developed a high-performance User Activity Service with DynamoDB, reducing latency by 55% across 100K+ activity logs powering ML, monitoring, and analytics
- Orchestrated a distributed Search Service integrating OpenSearch with PostgreSQL and DynamoDB, delivering 3× faster query performance across 3+ indexes.
- Built production-grade features using Django, Redis, and AWS, boosting backend throughput by 40% and enabling real-time data sync across 5+ microservices.

FEATURED PROJECTS

Personal Website: www.musoye.tech (for additional information on projects).

Padipay - Voice-Enabled Payment Platform [\(padipay.musoye.tech\)](http://padipay.musoye.tech)

- Designed a voice-controlled payment system allowing users to perform transactions using English and Nigerian English, with real-time processing and secure transaction handling. Integrated multilingual voice recognition and backend validation to ensure accurate and efficient transfers.
- **Tech:** Python, Django, MongoDB, SpeechRecognition API, REST APIs, PostgreSQL

TrustLock – Organization Access Management [\(trustlock.musoye.tech\)](http://trustlock.musoye.tech)

- Role-based access control with audit trails of IP/device/location for remote workforce security.
- **Tech:**Django, PostgreSQL, Redis, JWT, REST APIs, Vue js

EcoFlow AI – Intelligent Energy & Urban Monitoring Platform ([ecoflow_ai](#))

- Saudi Arabia : Intelligent Planet Hackathon (Top 25 of 2000+ teams)
- Developed EcoFlow AI, an event-driven digital twin platform on Google Cloud that processes real-time IoT data to predict crowd surges and optimize carbon emissions using split-stream architecture (Firestore for real-time updates, BigQuery for analytics).
- **Tech:** Flask, MySQL, HTML/CSS/JS, Nginx, HAProxy, Git.

Brain Tumor Detection ([github](#))

- Built a custom CNN and fine-tuned ResNet model to classify brain tumors from MRI images. Focused on image preprocessing, model evaluation, and created a real-time web app for predictions.
- **Tech:**Python, PyTorch, TensorFlow, OpenCV, Flask

CropWatch – AI Crop Disease Detection ([crop_ai_disease-detection](#))

- Developing an AI-powered crop disease detection system using transfer learning on convolutional neural networks (CNNs) to classify plant diseases from leaf imagery and support early agricultural diagnosis.
- Implemented a two-stage training pipeline (feature freezing followed by fine-tuning) to improve model convergence and accuracy on a custom dataset of crop-specific diseases.
- Integrated the trained model with a mobile application backend to enable real-time inference, allowing farmers to capture leaf images and receive instant disease predictions in the field.
- **Tech:** Flask, MySQL, HTML/CSS/JS, Nginx, Git.

Fine-tuning GPT-2 for Sentiment Analysis ([github](#))

- Retrained and fine-tuned the GPT-2 architecture using PyTorch on a custom dataset to deliver high-accuracy sentiment classification. Implemented efficient tokenizer setup and model optimization, enabling context-aware text analysis with reduced inference latency.
- **Tech:**Python, PyTorch, Transformers

SKILLS

Programming & Framework: Python, JavaScript, TypeScript, Go, C/C++, PHP, SQL, Bash; Django, Flask, Express.js, Laravel

Databases & Cloud/DevOps:PostgreSQL, MySQL, MongoDB, DynamoDB; AWS (S3, SQS, DynamoDB), Docker, Linux, Nginx, HAProxy, Redis

Machine Learning & Tools: Pandas, NumPy, scikit-learn, PyTorch; Git, REST APIs, GraphQL, Microservices, Agile, HTML, CSS, Tailwind CSS, jQuery

Publications & Articles

- Mustapha O., Charles O. (In Review). “Lightweight and Privacy-Preserving Federated Deep-Learning Framework for Efficient Brain Tumor Detection Across Distributed Medical Centers.”

Developed a lightweight, privacy-preserving federated learning framework for collaborative MRI analysis, achieving 84% accuracy with a Custom CNN and 98.5% with EfficientNetB0, optimized via pruning and quantization for standard clinical hardware.

- Brain Tumor Detection using MRI Scanned Images – Deep dive into medical AI: Building CNN models to classify brain tumors from MRI scans with high accuracy. [\[Read Article\]](#)
- System Administration: Processes on Linux – Understanding Linux process management, from creation to termination, and everything in between. [\[Read Article\]](#)
- Web Development: What Happens When You Press Google.com and Press Enter – A comprehensive breakdown of the web request journey from DNS lookup to page rendering. [\[Read Article\]](#)

Positions of Responsibility & Leadership

Bootcamp & Skills Development Lead – Google Developer Student Club (GDSC), FUTA (2023/2024 & 2024/2025)

- Organized and led coding bootcamps, introducing students to backend development, cloud technologies, and technical frameworks.
- Mentored participants to gain hands-on technical skills and real-world project experience.

Tutor – Engineering Thermodynamics (MEE 206), Muslim Student Society of Nigeria, FUTA

- Tutored up to 30 students, helping them improve their understanding and grades in thermodynamics.

Peer Tutor – Discrete Mathematics & Algorithms (CPE 201) & C Programming (CPE 202), FUTA

- Mentored departmental peers in core computer science subjects, achieving high success rates among mentees.