

# EMMANUEL ARO

SOFTWARE ENGINEERING NERD · SYSTEMS · PLATFORMS · APPLIED AI

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## PROFILE

Software Engineering Nerd operating as a **Full Stack Software Engineer**, specializing in the end-to-end architecture of scalable, production-grade platforms at the intersection of web systems and applied machine learning. Obsessive about the craft across the **Python / Django Ninja** and **Next.js (App Router) / TypeScript** ecosystems, with a working discipline built around strict typing, containerized delivery, and measurable system outcomes. Proven record of shipping first-to-market products — from enterprise workflow platforms to predictive security models — with a bias for decoupled architecture, defensible API surfaces, and infrastructure that holds under production load.

## CORE TECHNICAL STACK

### LANGUAGES

Python, TypeScript / JavaScript (ES6+), PHP, SQL

### BACKEND & APIS

**Django Ninja**, Django, REST, JWT Auth, Laravel, Node.js

### FRONTEND / UI SYSTEMS

**Next.js (App Router)**, React, Tailwind CSS, Shadcn/UI

### DATA LAYER

**PostgreSQL**, MySQL, SQLite, Supabase

### INFRASTRUCTURE & DEVOPS

**Docker**, AWS, CI/CD pipelines, Git / GitHub, Postman

### AI / ML & APPLIED RESEARCH

Scikit-learn, TensorFlow, Pandas, NumPy, OpenCV (Computer Vision), NLP, Malware Analysis

### ENGINEERING PRACTICE

Agile / Scrum, API contract design, endpoint hardening, schema modeling, performance profiling

## PROFESSIONAL EXPERIENCE

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### **Tech4mation (NativeTalk) · Software Developer, Platform Engineering**

FEB 2026 – PRESENT · LAGOS, NG

- Architected **TaskForge Pro**, a high-throughput team-management platform on **Django Ninja + Next.js (App Router) + PostgreSQL**, designed around a decoupled service boundary and strict typed API contracts.
- Hardened the platform's security posture by designing a **JWT**-based authentication layer and codifying an endpoint-coverage regime in Postman to catch regressions before promotion to staging.
- Shipped core contributions to the **omnichannel-crm** service, refactoring backend logic for horizontal scalability and reducing coupling between channel adapters and the core messaging pipeline.
- Standardized local and staging environments with **Docker**, eliminating environment drift and reducing onboarding time for new contributors.

### **Bincom Dev Center · Full Stack Developer**

SEP 2025 – JAN 2026 · LAGOS, NG

- Architected **Next.js** UI layers for high-load web applications, measurably improving frontend performance budgets and SEO posture via App Router primitives and server-component data flow.
- Re-modeled relational schemas in MySQL and rewrote hot-path queries, accelerating data retrieval by **20%** and stabilizing latency under peak load.

### **Boxonia Blueprint · Software Engineer**

OCT 2024 – PRESENT · LAGOS, NG

- Built a centralized digital ecosystem in Python that consolidates story-development and talent-management workflows for globally distributed film productions.
- Shipped a talent-booking platform that removed cross-border coordination bottlenecks for high-profile international clients, turning multi-day scheduling cycles into a single transactional flow.

### **Cyberbuddies.com · Full Stack Developer**

APR 2024 – AUG 2024 · IBADAN, NG

- Shipped multiple full-stack applications end-to-end and introduced automated testing pipelines that raised team delivery velocity by **25%**.
- Led a production workload migration to **AWS**, re-planning resource allocation to cut infrastructure overhead while preserving SLA targets.

### **SafeSpace.org Association · Operations QA Engineer**

MAY 2023 – FEB 2024 · CALIFORNIA, US (REMOTE)

- Designed and deployed **Python / Django** automation pipelines that lifted operational throughput by **30%**, replacing manual review loops with deterministic, auditable workflows.
- Instituted a QA protocol that reduced data-entry error rates by **50%**, establishing the organization's internal benchmark for data integrity in containerized environments.

### **Fiatci.io · Lead Full Stack Engineer**

SEP 2022 – MAR 2023 · BRUSSELS, BE (REMOTE)

- Led a 7-engineer team through the end-to-end architecture, build, and deployment of the company's flagship web platform — delivering the **first successful product launch in company history**.
- Set technical direction across frontend, backend, and release engineering; owned review standards, branching strategy, and the cutover plan into production.

## APPLIED AI / ML PROJECTS

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### Malware Detection System

PYTHON · SCIKIT-LEARN · SECURITY ML

Designed a Python-based security platform that applies supervised machine learning to real-time malware identification and classification. Delivers predictive threat analysis suitable for enterprise endpoint monitoring, with a pipeline structured for retraining on evolving threat corpora.

### Facial Recognition Attendance System

PHP · JAVASCRIPT · OPENCV

Engineered a webcam-driven attendance platform combining PHP / JavaScript on the application tier with computer-vision recognition pipelines. Captures, normalizes, and classifies facial images, then persists attendance events to a secured relational store — productionized for institutions, enterprises, and live events.

### Cancer Risk Prediction (Clinical ML)

SCIKIT-LEARN · PANDAS · CLINICAL DATA

Built a high-accuracy diagnostic model trained on clinical datasets for proactive risk assessment. Emphasizes reproducible feature engineering and explainable classification outputs for clinical review contexts.

### Fake Tweet / Misinformation Detection

NLP · TEXT CLASSIFICATION

Developed an NLP classifier targeting misinformation on social platforms, integrating tokenization, embedding, and classification primitives to lift content-integrity signal on noisy input streams.

### Named Entity Recognition (NER) Model

NLP · PYTHON · INFORMATION RETRIEVAL

Designed and shipped an NLP pipeline that extracts and categorizes entities (persons, locations, dates) from unstructured text, delivering precise structured output from free-form input — deployable as a reusable information-retrieval component.

## EDUCATION & CERTIFICATIONS

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B.Sc. Computer Science — Federal University Oye-Ekiti, Nigeria

2025

Software Engineering Certification — GB-Tech Learning Centre, Ibadan, Nigeria

2023

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REFERENCES & EXTENDED PROJECT DOCUMENTATION AVAILABLE ON REQUEST