

EMMANUEL ADEMOLA

SOFTWARE ENGINEER

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SUMMARY

Results-driven software engineer with 5+ years of experience delivering scalable, high-performance solutions across web development and IoT/robotics. Skilled in both Python (Django, Flask, FastAPI) and TypeScript/JavaScript (NestJS, Node.js) for backend API development.

Proficient in crafting robust solutions such as authentication systems, authorisation protocols, dynamic workflows, caching strategies, and microservice-ready architectures. Experienced in full application lifecycles — from gathering requirements to deployment on cloud platforms including AWS, DigitalOcean, Render, and Heroku.

Known for strong collaboration, mentoring, and leading technical training, with a proven track record of helping students and teams succeed in national tech competitions.

EXPERIENCE

- Software Engineer June 2025 – Present
Lights on Heights Holdings Limited, Lagos– Remote
 - Scaling backend microservices and building async-compatible background job systems powering real-time AI workflows.
 - Designing resilient task queues and structuring logging pipelines for chat memory and analytics.
- Backend Developer (Contract) April 2025 – June 2025
IfNotGod Tech – Remote
 - Developed core backend services for a travel-booking platform supporting both web and mobile clients.
 - Designed and implemented role-based access control using Django REST Framework.
 - Built a reporting API to deliver real-time metrics on users, bookings, and revenue.
 - Automated CI/CD processes for smoother deployments on a cloud VPS.
 - Coordinated with frontend engineers to ensure API consistency, versioning, and seamless integration.
- C.T.O / Technical Instructor April 2022 – April 2025
EduPoint Limited, Lagos
 - Served as Chief Technology Officer, providing technical leadership to 10+ cross-functional teams; improved issue-resolution time by 35% through structured collaboration and streamlined communication channels.
 - Designed and prototyped robotics solutions—integrating microcontrollers, sensors and actuators—to enhance student projects; resulting in 3 national competition wins.
 - Taught coding (Python, JavaScript) and robotics (Arduino, Vex) to 200+ students; 80% progressed to advanced levels.
 - Led student teams to victory in 3+ national coding and robotics competitions, elevating the school's recognition and student placement rates.
- Data Analysis Instructor November 2021 – February 2022
USADF / LSETF
 - Trained 15+ students in Python-based data analysis (pandas, NumPy, matplotlib), achieving an 85% course completion rate.
 - Guided learners in interpreting datasets, enhancing data-driven decision-making skills; 60% secured internships or full-time roles post-training.

- Backend Developer Intern / Technical Instructor October 2019 – November 2022
UNITEs Cisco Networking Academy
 - Collaborated with a cross-functional engineering team using Git for version control and Agile methodologies; contributed to sprint planning and backlog refinement.
 - Assisted in database model design (MySQL, PostgreSQL) and optimised queries for efficient student record management
 - Contributed to unit and integration tests using pytest and unittest, ensuring consistent and reliable API behaviour.
 - Conducted hands-on sessions for 500+ students, achieving a 90% improvement in their networking and programming competencies.
 - Streamlined data entry processes, reducing administrative errors by 25%.

PROJECTS

- Quizzen App (2025)** – [Demo](#) | [Preview](#)
 An interactive quiz platform with real-time scoring and leaderboards. Features OAuth login, responsive UI and RESTful backend.
- CurrencyMate (2024)** – [Preview](#)
 Real-time currency conversion tool leveraging external exchange-rate APIs. Implemented caching layer with Redis to reduce API calls and improve response times.
- EcoBin (2024)** – [Demo](#) | [GitHub](#)
 Smart waste bin with ultrasonic sensors and motion detection to eliminate physical contact. Microcontroller-driven automation with real-time fill-level monitoring.
- Radiance Smart City (2023)** – [Demo](#) | [GitHub](#)
 Arduino-powered smart-city system featuring automated street lighting, RFID-based access control and flood detection sensors.
- Simple Shell (2023)** – [GitHub](#)
 UNIX command interpreter (shell) built in C. Supports built-in commands, I/O redirection, piping and job control.
- [See More...](#)

EDUCATION

- Software Engineering 2025
ALX Africa
- BSc. (Ed.) Computer Science 2020
University of Benin

PROFESSIONAL CERTIFICATES

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| ✓ Software Engineering - ALX Africa | ✓ IT Essentials - Cisco |
| ✓ Python - Cisco , Sololearn , TechQuest | ✓ Introduction to CyberSecurity - Cisco |
| ✓ HTML - Sololearn | ✓ Introduction to IoT - Cisco |
| ✓ CSS - Sololearn | ✓ Networking - Cisco |
| ✓ Data Analytics - Side Hustle 5.0 | ✓ Soft Skills Training - Jobberman |
| ✓ Leadership - Myles Leadership University | |

SKILLS

- ✓ **Languages & Frameworks:** Python • Flask • Django • Django REST Framework • HTML • CSS • JavaScript • TypeScript • Node.js
- ✓ **Databases & Caching:** MySQL • PostgreSQL • Redis • MongoDB
- ✓ **DevOps & Deployment:** AWS • DigitalOcean • Render • PythonAnywhere • Heroku • Docker • HAProxy • NGINX • systemd • CI/CD (GitHub Actions)
- ✓ **Other Technologies:** Authentication • JWT • RESTful API Development & Integration • WebSockets • Microcontrollers (Arduino) • Sensors • Pictoblox • TinkerCAD • Fritzing
- ✓ **Soft Skills:** Version Control • Performance Optimisation • UI/UX Implementation • Project Management • Team Collaboration • Curriculum Development • Technical Writing • Time Management • Communication • Problem-Solving • Leadership

AWARDS & ACHIEVEMENTS

- ✓ **Finalist** – Fuze Talent Show 3.0 (2024)
- ✓ **Winner** – STEMITE Zone Fair –Junior Category (2024) (EcoBin Project)
- ✓ **Winner** – Edupoint RoboCode Fest 2.0 (2023) (Radiance Smart City Project)
- ✓ **Second Place** – Robocode Fest 1.0 (2024) (RSB 1.0 Smart Bin Project)
- ✓ **Most Outstanding Tutor** – EduPoint Limited (2022)

LEADERSHIP & VOLUNTEERING

- ✓ **Chief Technology Officer** – EduPoint Limited (2024 – 2025)
- ✓ **Co-Founder & Coordinator** – R2-7 Foundations (2022 – Present)

REFERENCE

Available upon request