

Omotoso Abdul-Rauf Abiola

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SUMMARY

Backend Engineer and Data Science enthusiast with over 6 years of experience building scalable server-side applications, APIs, and data-driven solutions. Proficient in Python, Django, Node.js, and Test-Driven Development (TDD), with strong skills in database optimization and system architecture. Experienced in designing production-grade APIs, integrating AI/LLM-based services, and developing high-performance architectures from web platforms to embedded IoT systems.

EXPERIENCE

Python Engineer | Platform Lead Limited | Ibadan, Nigeria | October 2022 - Present

- Engineered Django-based applications, improving backend performance by 25% and scalability by 30%.
- Implemented a full **Test-Driven Development (TDD) workflow** using Pytest/Unittest, increasing code reliability and reducing production bugs by **35%**.
- Developed **End-to-End (E2E) test suites using Playwright + Pytest** to validate user flows, API interactions, and UI behavior, resulting in a 20% decrease in user-reported issues.
- Wrote unit, integration, and API tests before feature implementation, ensuring consistent and maintainable code quality.
- Collaborated with frontend teams to deliver responsive, stable features and reduce regression occurrences.
- Implemented OWASP security standards, RBAC, and security-focused automated tests for modular REST APIs used across multiple internal products.

Backend Engineer (Contract Role) | Bekkah AI | Remote | August 2024 - Present

- Architected scalable RESTful APIs utilizing Node.js, Express.js, Nest.js, and Django, integrating automated CI/CD and testing pipelines to raise test coverage from 65% to 90%.
- Adopted **TDD for all new backend modules**, reducing regression defects by **30%** and improving release stability.
- Designed reusable testing fixtures, mocks, and data factories for Pytest, alongside Playwright-powered E2E test flows.
- Built event-driven microservices and pipelines using **Django, Node.js and Express.js**, effectively handling 100K+ background jobs with test-backed resiliency.
- Optimized database architecture with test validation ensuring zero performance regressions across React, Node.js, DRF and Django full-stack solutions.

Backend Instructor | ORA Tech Solutions | Freelancing | February 2024 - Present

- Developed backend engineering curricula (Django, Node.js, Express.js) for 50+ students, resulting in a 40% increase in successful API project deployments.
- Facilitated interactive troubleshooting and debugging workshops, improving cohort issue resolution speed by 25%.

Data Science and Python Instructor | Platform Lead Limited | Ibadan, Nigeria | October 2022 - May 2025

- Led Python and data science training, achieving a 95% student completion rate.
- Mentored students through real-world coding projects, increasing assessment scores by 20% and improving overall comprehension.

Back-end Developer | Iris Technology | Lagos, Nigeria | April 2020 - August 2022

- Designed Django, Node.js, Express.js, and Nest.js microservices, increasing scalability by 30% and reliability by 20%.
- Integrated GraphQL and optimized database indexing, cutting query time by 25% and enhancing security by 30%.
- Created early-stage E2E testing flows using Pytest-based tools to verify system integrity.
- Coordinated debugging and performance optimization, reducing issue resolution time by 20% and minimizing production issues through test-first workflows.

PROJECTS

Farmkonnnect Investment Application | Bekkah AI | www.farmkonnnect.farm | June 2025 - July 2025

- Led full-stack development of a cloud-based investment platform serving 1,000+ active investors, integrating a React.js frontend with Django REST APIs for real-time analytics.
- Implemented advanced security protocols including end-to-end encryption and multi-factor authentication, achieving zero security breaches over 12 months.
- Architected scalable cloud infrastructure with auto-scaling, Docker deployments, and asynchronous task queues, reducing transaction processing time by 35%.

Magikmaker | Freelancing | February 2025 - June 2025

- Architected a modular backend infrastructure utilizing Nest.js to process 1,000+ monthly user photo uploads for AI-driven avatar generation.
- Engineered robust REST API endpoints to handle asynchronous AI model requests, reducing average server response latency by 35%.
- Integrated Stripe payment gateways and secure authentication to manage 3 tiered subscription models, enforcing precise daily limits.
- Designed optimized database schemas to efficiently track user quotas, billing cycles, and rendering histories, improving query execution speed by 40% across all subscription tiers.

Cystads | Bekkah AI | cystads.com/

- Developed and launched a gamified cultural education platform** serving **1,000+ users**, integrating Django Template with Django MVT to deliver interactive quizzes, AI storytelling, and multimedia content.
- Engineered secure, scalable backend services** with real-time quiz generation, leaderboard tracking, and reward payouts, handling **payout** with **zero security incidents**.
- Optimized system performance and UX**, implementing responsive design and caching strategies that increased average session time by **150%** and boosted user engagement by **200%**.

Guardian Angel | Bekkah AI | play.google.com/store/apps/details?id=com.bekkah.guardian_angel&pcampaignid=web_share

- Engineered API infrastructure for a mobile app with 1,000+ users, enhancing security and data flow.
- Collaborated on admin web features, reducing bug reports by 30%.

Ventetrack | Platform Lead Limited | www.ventetrack.com/

- Developed and maintained backend services using Django REST Framework, powering invoicing, expense tracking, inventory synchronization, and POS modules, resulting in a 50% faster transaction processing time.
- Designed optimized database schemas and indexing strategies, reducing query latency by 40% and improving data accuracy for real-time reporting across financial and inventory datasets.
- Implemented secure authentication, role-based access controls, and cloud deployment pipelines, ensuring 99% uptime and zero security breaches during high-volume billing cycles.

Autonomous Fire Suppression & IoT Alert System | University of Ibadan | March 2026 - June 2026

- Engineered a sensor-driven autonomous fire detection and extinguishing robot utilizing ESP32 and Arduino Uno microcontrollers programmed in C++.
- Integrated a Django server API to enable real-time IoT metrics, deploying automated SMS and email alerts for remote outside-world monitoring.
- Designed and assembled the hardware circuit components and chassis, including an SH1106 OLED display and multi-sensor arrays, successfully debugging mechanical locomotion and motor pin wiring.

AI Chatbot | IRIS Technology | github.com/abiola9525/studbot.git

- Built and deployed an AI chatbot with NLTK and Flask, reducing customer service response time by 30%.

EDUCATION

Bachelor of Science in Computer Science | University of Ibadan | Minor in Mathematics, Statistics | Ibadan, Nigeria | 2026

CERTIFICATIONS

OPSWAT Cybersecurity Fundamentals Associate | OPSWAT Academy | 2024

- Focused on secure API development and data protection.

OPSWAT Introduction to Critical Infrastructure Protection (ICIP) | 2023

- Covers strategies for safeguarding critical infrastructure against cyber threats.

Python Essentials | Cisco Network Academy | 2022

- Emphasizes core Python programming principles for networking and IT applications.

INVOLVEMENT

Backend Lead | Nigeria | ATC Africa | September 2024 - Present

Backend Lead | Africa | Dev Career Africa | January 2025 - January 2026

Python Instructor | Remote | ReDI School of Digital Integration | February 2024 - June 2024

AWARDS & HONORS

Certificate of Excellence | BuildWithOyo Tech Initiative, Oyo State Government | 2026

- Recognized for outstanding participation and technical contribution to the state-led technology initiative.

SKILLS

Language: Python, JavaScript, TypeScript, C++, R, Java, Rust, Bash/Shell Scripting

Frameworks & Tools: Django, Django REST Framework, FastAPI, Flask, Node.js, Express.js, Nest.js, Scikit-learn, Pandas, NumPy, Git, GitHub, Docker, Kubernetes, Jenkins, AWS, Azure, Nginx, Gunicorn, PM2, Linux/Ubuntu

Databases: PostgreSQL, MySQL, MongoDB, SQLite, GraphQL, Microsoft SQL Server, Oracle

Technical Skills: API Development, Test-Driven Development (TDD), Database Schema Design, Embedded Systems, IoT, Modular Architecture, RESTful Services, Data Analytics & Visualization, LLM Integration, Object-Oriented Programming (OOP), Cloud Infrastructure, CI/CD Pipelines, Security Fundamentals, Network Security
