Omotoso Abdul-Rauf Abiola

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SUMMARY

Backend Engineer and Data Science enthusiast with over 5 years of experience building scalable server-side applications, APIs, and data-driven solutions. Proficient in Python, Django, and Test-Driven Development (TDD), with strong skills in data analysis, machine learning, and database optimization. Experienced in designing modular, production-grade APIs and integrating AI/LLM-based services. Adept with modern tools including Node.js, React, AWS, Docker, and Kubernetes. Passionate about leveraging data and clean architecture to develop intelligent, high-performance systems at scale.

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.
- Built modular REST APIs used across multiple internal products.

Backend Engineer (Contract Role) | Bekkah AI | Remote | August 2024 - Present
- Architected RESTful APIs with automated CI/CD and testing pipelines, raising 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.
- Developed **Playwright-powered E2E test flows** to validate real-world system behavior across frontend and backend environments.
- Built event-driven pipelines handling 100K+ jobs with test-backed resiliency.
- Optimized database architecture with test validation ensuring zero performance regressions.
- Delivered React + Django REST full-stack solutions with automated end-to-end validation.

Data Science and Python Instructor | Platform Lead Limited | Ibadan, Nigeria | October 2022 - Present
- Led Python and data science training, achieving a 95% student completion rate.
- Created real-world coding projects, improving comprehension by 35%.
- Mentored students, increasing assessment scores by 20% and successful completions by 25%.

Back-end Developer | Iris Technology | Lagos, Nigeria | April 2020 - August 2022
- Designed Django and Node.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%.
- Improved API reliability and reduced production issues by enforcing test-first workflows.

Science Teacher | Ebony High School | Ibadan, Nigeria | September 2019 - July 2020
- Taught Chemistry and Biology using interactive methods, increasing student engagement by 40%.
- Developed lab-based curricula, enhancing scientific understanding by 30%.
- Mentored students and led science clubs, improving academic performance.

PROJECTS

Farmkonnect Investment Application | Bekkah AI | farmkonnect-client.vercel.app/ | 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 seamless portfolio management, secure transactions, and **real-time analytics dashboards** that improved investor decision-making speed by **40%**.
- **Implemented advanced security protocols** including **end-to-end encryption**, **multi-factor authentication**, and secure API gateways, safeguarding **100% of sensitive financial data** and achieving **zero security breaches** over 12 months.
- **Architected scalable cloud infrastructure** with auto-scaling, containerized deployments (Docker), and load balancing, enabling a **200% increase in concurrent users** while maintaining **99.95% uptime**.
- **Optimized backend data processing** with asynchronous task queues, reducing transaction processing time by **35%** and ensuring high availability during peak usage.

AI-Powered Disease Prediction Platform | Freelance | May 2025 - July 2025
- Developed a machine learning system to predict the likelihood of chronic diseases (e.g., diabetes, heart disease) using patient health records, analyzing over **15,000 anonymized samples** to identify key risk indicators.
- Implemented data preprocessing, feature selection, and model training using **Pandas, NumPy, Scikit-learn, and XGBoost**, achieving **92% prediction accuracy** and reducing false positives by **18%**.

- Designed an **interactive analytics dashboard** with Django and Chart.js, providing real-time health insights and visualizations that improved data interpretation speed by **45%**.
- Deployed the trained model via a **REST API** for seamless integration with telehealth or EHR systems, scaling to handle **10,000+ API requests daily** with **99.9% uptime**.
- Applied **explainable AI (XAI)** techniques using SHAP to interpret model predictions, increasing clinician trust and interpretability by **60%** during evaluation testing.

Home RevampExpert | Platform Lead Limited | homerevampexpert.com/
- Designed secure API endpoints for homeowner issue tracking, ensuring 99.9% uptime and reducing response times by 40%.

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.

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

Bachelor of Science in Computer Science | University of the People | Minor in Mathematics | Pasadena, CA 91101, USA | 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 | Africa | Dev Career Africa | January 2025 - Present

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

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

SKILLS

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

Frameworks & Tools: Django, Django REST Framework, FastAPI, Flask, Node.js, Nest.js, Scikit-learn, Pandas, NumPy, Git, GitHub, Docker, Kubernetes, Jenkins, AWS, Azure

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

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