BRIAN NJUGUNA

Backend Developer

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Backend developer specializing in Django/Python with production experience building APIs, payment systems, and real-time applications. Delivered parental control platforms, e-commerce solutions, and voting systems serving real users. Strong focus on database optimization, security-conscious development, and system architecture.

Work Experience

CNB Code

01/2024 - Present

Backend Developer & Founder

- Built and deployed backend systems and APIs for clients across e-commerce, payments, and SaaS platforms.

- Developed Safeari, a parental control SaaS platform with Django REST Framework backend handling real-time analytics, automated threat blocking, and device management. Implemented Redis caching and Celery for background task processing. Architected PostgreSQL database schema for multi-tenant data isolation. Currently serving active users in production.

- Built payment gateway integrations for e-commerce platforms including M-Pesa (Daraja API) and Paystack, handling transaction processing, webhook validation, and reconciliation logic.

- Designed and implemented inventory management APIs and order processing systems with complex business logic for stock tracking and fulfillment workflows.

- Fixed critical production vulnerabilities including payment logic exploits and cart manipulation bugs, providing rapid response consulting services.

- Implemented CI/CD pipelines using Docker and GitHub Actions for automated testing and deployment across cloud infrastructure.

KISE COLLEGE

Thika, Kenya • 06/2024 - 07/2024

Project Lead – School Voting System

- Led technical development and team coordination for voting platform that handled live student elections for 500+ users.

- Built secure authentication system with role-based access control and session management using Django and PostgreSQL.

Skills

Backend

- Django
- Django REST Framework
- Python
- Node.js
- Express.js
- REST APIs
- Celery
- Redis
- API design and optimization
- security-conscious development practices

DevOps

- Docker
- GitHub Actions
- Jenkins
- AWS
- DigitalOcean
- CI/CD pipelines
- automated deployment

Database

- PostgreSQL
- Supabase
- Django ORM
- database optimization
- query performance tuning

Frontend

- React
- TypeScript
- JavaScript (ES6+)
- Tailwind CSS
- HTML5
- CSS3

- Designed real-time vote counting engine with database transactions ensuring data integrity and preventing race conditions.
- Developed administrative dashboard API with audit logging and vote verification endpoints.
- Coordinated team of 10 developers, resolved technical conflicts, and maintained project timeline through completion.
- Delivered zero-downtime deployment during live election period with real-time monitoring and support.

Projects

Multi-Provider DNS Management Backend (Open Source)

- Centralized backend API for managing DNS filtering across multiple providers including NextDNS, AdGuard, and Pi-hole. Enables developers to switch providers without code changes through unified REST interface and configuration-based setup.
- Stack: Django, Django REST Framework, PostgreSQL, Redis

Payment Gateway Abstraction API

- Developer-friendly payment API supporting multiple payment providers (Daraja/M-Pesa and Paystack) with built-in invoicing. Eliminates vendor lock-in through provider-agnostic interface requiring only configuration changes to switch gateways.
- Stack: Django, Django REST Framework, Celery, Redis

Tools

- Git/GitHub
- Bash scripting
- Linux environments
- Postman

Education

Backend Software Engineering Program

ALX Africa
(Remote)
01/2025 - 10/2025

Diploma, Software Engineering

Kenya Institute Of Software Engineering
Thika, Kenya
05/2023 - 12/2024