Tolu Agbaje-Daniels

Backend Software Engineer | Python, Django, Flask, PostgreSQL, REST & GraphQL APIs

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PROFESSIONAL SUMMARY

Backend Software Engineer with 3+ years of experience designing, building and maintaining production APIs and distributed backend systems in Python. Core contributor to a multi-tenant HR, payroll and fintech SaaS platform and lead backend engineer on a services marketplace with payments, real-time notifications and wallet transfers. Comfortable owning features end to end, from schema design and business logic to deployment and production support, in agile teams.

TECHNICAL SKILLS

Languages: Python, SQL

Frameworks: Django, Django REST Framework (DRF), Flask, Graphene (GraphQL), Django Channels

APIs & Architecture: RESTful API design, GraphQL, WebSockets, webhooks, event-driven and asynchronous processing, multi-tenant SaaS, modular / service-layer architecture

Databases & Caching: PostgreSQL, SQLAlchemy ORM, Django ORM, Alembic migrations, Redis, query optimisation, data modelling

Async & Messaging: Celery, Celery Beat, Redis, Flower, APScheduler

Security & Auth: JWT (access/refresh, token revocation), OAuth 2.0, Google and Apple Sign-In, TOTP two-factor authentication (2FA), Role-based access control (RBAC), rate limiting, CORS

Cloud & DevOps: Docker, Docker Compose, GitHub Actions (CI/CD), Heroku, Render, Railway, Google Cloud (GCP), Gunicorn, Uvicorn, Daphne (ASGI), Nginx, Linux, Git

Testing & Quality: pytest, Django TestCase, unit and integration testing, code review, Sentry error monitoring, OpenAPI / Swagger documentation (drf-spectacular)

Integrations: Paystack (payments, transfers, webhooks), Brevo transactional email, Cloudinary, Google APIs, Slack

PROFESSIONAL EXPERIENCE

Backend Engineer, WorkFlowsHR (Full-time)

February 2025 – Present | HR, Payroll & Fintech SaaS Platform

- Core backend engineer on a multi-tenant HR and payroll SaaS platform processing payroll for 5+ organisations.
- Designed and built GraphQL APIs with Graphene-Django for organisation, employee, payroll and leave management, consumed by the web dashboard.
- Built and deployed an end-to-end in-house recruitment feature covering the full applicant lifecycle, including interview scheduling, offer letter management and background check information collection.
- Integrated the Paystack payment gateway and processed webhook events for wallet, expense and payroll disbursements, with asynchronous Celery tasks for reliable background processing.
- Implemented TOTP-based two-factor authentication (2FA) with setup-key fallback, and extended JWT authentication and role-based access control for admins, line managers and employees.
- Developed a configurable review cycle engine that allows admins to set up timely performance review periods with automated reminder notifications and a multi-rater feedback system allowing employees to receive evaluations from managers, peers, and self-assessments for performance analysis.

Tech: Python, Django, GraphQL (Graphene), Django REST Framework, PostgreSQL, Celery, Redis, Django Channels, Paystack, WeasyPrint, openpyxl, Docker, GitHub Actions, Sentry

Lead Backend Contributor, tiviTea (Contract)

May 2024 – Present | Services Marketplace, Bookings & Payments Platform

- Lead backend contributor on a consumer marketplace platform built with Django REST Framework, covering authentication, service listings, bookings, artisans, marketplace, cart, orders and payments.

- Built authentication with JWT, email verification, Google and Apple Sign-In, KYC document upload, account deactivation and switching between customer and artisan accounts.
- Designed booking and availability logic (booked dates, quotations, confirmation and delivery flows) and a marketplace with cart, order lifecycle, inventory quantity checks, and customer complaints.
- Cut disputed payouts by adding complaint checks before Paystack transfers.

Tech: Python, Django, Django REST Framework, PostgreSQL, Celery, Redis, Django Channels, WebSockets, Paystack, Docker, GitHub Actions

Backend Engineer, TechMaestro

April 2022 – January 2025 | Consultancy Service-Professional

- Contributed to the minimum viable project (MVP) of WorkflowsHR platform.
- Contributed to DispatchMaestro application. Integrated Paystack for payment processing with added functionality for refunds and transfers. Built automated notifications for logistics updates and payments through Google SMTP. Leveraged Google's Geocoding API to calculate distances for accurate shipping cost estimation.

Tech: Python, Django, Django REST Framework, PostgreSQL, Celery, Redis, Django Channels, WebSockets, Paystack, Docker, GitHub Actions

PROJECTS

Fulfil – REST API for a Service-Professional Directory (Sole Developer)

October 2026 – Present | Flask, PostgreSQL, SQLAlchemy, pytest

- Designed and built a RESTful JSON API from scratch with Flask 3, SQLAlchemy 2, PostgreSQL 17 and marshmallow, using a modular routes / services / schemas architecture.
- Implemented email and password sign-up, Google Sign-In (ID-token verification), and JWT access and refresh tokens with logout and token revocation via a blocklist.
- Built public listing endpoints with filtering, keyword search, ordering and pagination, plus ownership checks, soft deletes and a consistent response and error format across the API.
- Managed schema changes with Alembic migrations, wrote unit and integration tests with pytest, and set up GitHub Actions CI and a Heroku pipeline (staging from dev, production by promotion) with Docker Compose for local development.

DCC – Small-Group Management & Reporting API (Lead Backend Developer)

September 2026 – October 2026 | Django REST Framework, PostgreSQL, Redis, Django Channels

- Lead backend developer on a REST API for a church small-group network, modelling a six-level organisational hierarchy (region, district, zone, area, section, cell) with a leader at each level for 100+ cell leader weekly submissions.
- Built JWT authentication with passwordless onboarding, login by email or cell code, plus role-based permissions that scope every leader's data to their level of the hierarchy.
- Designed the weekly report workflow: submission with configurable required fields, an approval queue with approve/reject and comments, and a dedicated WhatsApp submission endpoint that tags each report's source.
- Built leadership dashboard endpoints with roll-up summaries across hierachies.

Tech: Python, Django, Django REST Framework, PostgreSQL, Redis, Django Channels, Daphne, APScheduler, openpyxl, Brevo, Docker, Render, drf-spectacular

HubForJobs – Job Board Platform & External Recruitment API (Backend Contributor)

April 2026 – June 2026 | Flask, PostgreSQL, SQLAlchemy, Google App Engine

- Designed and built a partner-facing External Recruitment REST API (Flask Blueprint): company sign-up, job posting create / read / update / delete, publish and unpublish, form lookups and job statistics.
- Integrated the API with the WorkFlowsHR recruitment module through a Python client service.
- Migrated payments from Flutterwave to Paystack, including a webhook endpoint with HMAC-SHA512 signature verification and constant-time comparison.

Tech: Python, Flask