

Nawaf Ur Rehman

Lahore, Pakistan (Remote) | +923030973884 | nawafbhatti007@gmail.com | linkedin.com/in/nawaf-ur-rehman-7731b01b2 | <https://nawafurrehman.com>

Senior Python Backend Engineer | APIs, Data Pipelines & AI Systems

PROFESSIONAL SUMMARY

Senior Python Backend Engineer with **5+ years** building distributed, microservices-based systems across backend APIs, data infrastructure, and applied AI/LLM engineering. Spent 3+ years driving core architecture at a production **Cybersecurity Startup**, taking enterprise B2B SaaS and mobile security platforms (200K+ users) from MVP to launch, cutting critical API latency by 75%, and shipping serverless RAG-based AI systems. I own services end-to-end: system design, architecture, CI/CD, and observability.

TECHNICAL SKILLS

Languages & Frameworks: Python, Django, FastAPI, Flask, Celery, Django Channels, JavaScript, jQuery, HTML/CSS

Data & Streaming: Apache Kafka, Kafka Connect, Change Data Capture (CDC), Debezium, Apache Airflow, ETL Pipelines, Pandas, PySpark, Pydantic, SQLAlchemy

Databases & Search: PostgreSQL, MongoDB, TimescaleDB, Redis, OpenSearch, SQL Optimization, SQLite

AI & LLM: Claude Code, Codex, Langchain, Langgraph, LlamaIndex, OpenAI GPT API, IBM Watsonx, Elasticsearch Vector Search, Pinecone, Anthropic Claude (AWS Bedrock), RAG, LLM Integration, ML Model Deployment

Cloud & Infrastructure: AWS (Lambda, EventBridge, S3, Bedrock), GCP, Heroku, Docker, Terraform, Linux, WireGuard VPN

Testing & CI/CD: Unit Testing (pytest), GitHub Actions

Observability: Filebeat, Logstash, Logging & Debugging Pipelines

WORK EXPERIENCE

Senior Python Engineer | Pligence

May 2023 - Present

- **Enterprise Core Architecture (0 to 1):** Co-architected and engineered Pligence Connect (pligenceconnect.com) from initial MVP to a multi-tenant B2B Enterprise Mobility Management (EMM) SaaS platform, implementing secure tenant isolation with django-tenants and scalable PostgreSQL schemas.
- **High-Performance Backend & API Design:** Developed and maintained backend REST APIs and real-time device orchestration layers using FastAPI, Django, and Socket.IO, sustaining secure, low-latency concurrent connections for enterprise Android clients.
- **Production Refactoring & Performance Tuning:** Overhauled the legacy backend of PrivacyDefender (privacydefender.app), a mobile security app supporting 200K+ users, cutting critical API response times by 75% (1,000ms to 250ms) through strategic Redis caching.
- **Infrastructure & Zero-Downtime Migrations:** Directed server migration and optimization of 13-15 Linux VMs hosting the full product ecosystem (Django REST APIs, Data pipelines, Apache Kafka, Apache Airflow and other services), migrating databases with millions of records and zero production downtime.
- **Distributed Data Pipelines:** Redesigned a legacy batch ETL pipeline that delayed threat intel delivery by 6-7 hours into a real-time, event-driven CDC architecture using Apache Kafka and Kafka Connect, cutting data latency from hours to minutes and enabling near-instant threat detection delivery across multi-source intel feeds, with automated failure recovery for continuous uptime.
- **Threat Intelligence Platform (TIP) API:** Designed and built a production TIP API service powering real-time Android APK and URL threat detection for internal products and external clients. Architected a Redis-backed cache-first lookup across 15-20 threat intel data sources, falling back to ML model inference on cache misses, with results delivered asynchronously via callback APIs and webhooks; served thousands of requests per day.
- **AI & LLM Workflow Automation:** Built a 24/7 autonomous data-scraping and AI content pipeline (Python, Airflow, OpenAI GPT API) to aggregate, clean, and rephrase multi-source threat intel data, accelerating publishing speeds by 90%.

- **Observability & Logging Pipelines:** Established centralized logging and monitoring (OpenSearch, Filebeat, Logstash) across all production environments, cutting debugging time in half.
- **CI/CD & Testing:** Built automated CI/CD pipelines using GitHub Actions for testing and deployment, and wrote pytest unit tests for core services to reduce production regressions.

Senior Python Developer | Project based Contract | Shopex Agency

November 2025 - February 2026 (concurrent with Pligence)

- **Advanced AI System Engineering:** Developed a secure, multi-agent AI Enterprise Knowledge Assistant with intent recognition, integrating IBM Watsonx, Elasticsearch Vector Search, and AWS S3 for low-latency semantic querying over internal document stores.
- **Serverless Applied AI:** Programmed a serverless, event-driven intake pipeline (AWS Lambda, EventBridge, Pinecone Vector Search) to automate call-record matching via Anthropic Claude on AWS Bedrock; containerized with Docker and provisioned via Terraform.
- **IoT Data Pipeline & Alarm System:** Built an IoT device communication and data ingestion pipeline processing real-time sensor data, implementing threshold-based calculations to trigger automated alarm generation.
- **Zendesk-to-Intercom Migration:** Led end-to-end migration of 1M+ tickets, contacts, and conversation histories from Zendesk to Intercom via REST APIs, architecting validation logic to ensure zero data loss, then automating the full pipeline in Apache Airflow to eliminate manual re-runs.

Python Django Developer | DexterSol

May 2022 - April 2023

- **Full-Stack Application Delivery:** Architected and deployed 10+ full-stack web applications from scratch using Python, Django, and JavaScript/jQuery/AJAX.
- **Real-Time Feature Engineering:** Integrated WebSocket-based real-time chat and notification systems, driving a 40% increase in user engagement.
- **API Development & Execution:** Built high-performance RESTful APIs for scalable backend operations, maintaining a 90% on-time project delivery rate across client accounts.

Python Odoo Developer | Jiye Technologies

January 2022 - April 2022

- **ERP Module Engineering:** Custom-engineered and extended core Odoo ERP modules using Python to resolve supply chain, inventory, and operational data requirements.
- **Workflow Optimization:** Conducted functional consultations to translate enterprise business logic into maintainable backend architecture, reducing manual operational overhead.

Web Developer | Softearena Solutions

July 2021 - December 2021

- **Training & Client Delivery:** Completed an intensive 3-month full-stack web development training program, then independently delivered production client projects.
- **Full-Stack Project Delivery:** Built full websites and systems for clients, including a doctor/patient appointment and history platform, a restaurant management and order system, a seat-booking application, a CRM, and task-management tools.

EDUCATION

Bachelor of Science in Computer Science (BSCS), Government College University, Faisalabad

Language

English: Full Professional Proficiency (Comfortable leading technical discussions and client communication)