

AAYUSH PANDEY

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PROFESSIONAL SUMMARY

Backend-heavy Full Stack Engineer with 2+ years of production experience architecting event-driven microservices and distributed systems for a multi-tenant healthcare SaaS platform serving 3,000+ clinics across the USA and Canada. Deep hands-on expertise in NestJS, gRPC, Kafka-based CQRS/Event Sourcing/Saga architectures, and PostgreSQL at scale, backed by Next.js/React full-stack delivery. Builds production GenAI and agentic AI systems on Django/DRF — RAG, vector retrieval, LangGraph agent orchestration, tool calling, MCP, AWS Bedrock/Anthropic Claude, and full evaluation/observability tooling. Impact: 35% lower inter-service latency, 80% faster analytics queries over 1M+ records, 70% fewer deployment failures, 70% reduction in manual ticket handling.

TECHNICAL SKILLS

Backend & APIs: Node.js, NestJS, TypeScript, Python, Django, Django REST Framework, REST, GraphQL, gRPC, Microservices, Swagger/OpenAPI

Distributed Systems & Messaging: Kafka, Event-Driven Architecture, CQRS, Event Sourcing, Saga Pattern, Multi-Tenant Architecture

Databases & Data: PostgreSQL, Couchbase, Redis, MongoDB, TypeORM, Query Optimization

AI / LLM / Agentic AI: RAG, Embeddings, Vector Search (Qdrant), LangChain, LangGraph, Agentic AI, Tool Calling, MCP, AWS Bedrock, Anthropic Claude, OpenAI, Structured Outputs, Evaluation, Langfuse, OpenTelemetry, Guardrails, Human-in-the-Loop

Cloud & DevOps: AWS (EC2, SES, SQS, SNS), Docker, Docker Compose, GitLab CI/CD

Frontend: Next.js, React.js, TypeScript, TanStack Query, WebSockets

Security & Testing: OAuth 2.0, Auth0, JWT, RBAC, ABAC, Jest, SonarQube

WORK EXPERIENCE

Software Engineer — MediaNv

May 2025 – Present | Ahmedabad, Gujarat

- Architected **NestJS (TypeScript)** microservices for high-volume EMR workflows, migrating synchronous calls to **gRPC** and **Kafka-based CQRS** — separating write and read responsibilities for independent scaling — with **Event Sourcing** and the **Saga pattern** for cross-service consistency, cutting inter-service latency by **35%**.
- Optimized **PostgreSQL** schemas, indexes, and reporting views via **TypeORM**, pairing it with **Couchbase** for read-heavy access patterns and tuning **GraphQL** resolvers, cutting analytics query time by **80%** across datasets exceeding 1M records.
- Owned backend development for Admin, Support Ticket, Subscription, and Analytics modules on a multi-tenant healthcare SaaS platform serving 3,000+ clinics, building **REST/GraphQL APIs** with tenant-aware **RBAC/ABAC** authorization, **JWT** refresh-token rotation, and **OAuth 2.0/Auth0** integration.
- Built **Next.js/React** interfaces for the role-based admin panel and analytics dashboards, using **TanStack Query** for data fetching/caching and **WebSockets** for real-time ticket and dashboard updates, plus Excel/PDF export.
- Engineered asynchronous email-to-ticket and notification workflows using **AWS SES, SQS, and SNS**, converting inbound support requests into trackable tickets with retry-safe, failure-tolerant event processing.
- Built a **Django/Django REST Framework** GenAI support service using **Qdrant** vector search and embeddings for enterprise knowledge retrieval, powering ticket classification, routing, and automated resolution that cut manual ticket handling by **70%**.
- Designed **LangGraph** agent workflows with LLM **tool calling**, **MCP**-based enterprise tool integration, and **AWS Bedrock (Anthropic Claude, OpenAI) models**, adding structured outputs, human-in-the-loop approval, policy guardrails, and automated escalation/engineer assignment past confidence thresholds.
- Built an evaluation and observability layer for AI workflows with **Langfuse** and **OpenTelemetry** for tracing, quality metrics, and audit logging; maintained **Docker/GitLab CI/CD** pipelines with Jest and SonarQube quality gates, cutting deployment failures by **70%**.

Full Stack Developer — Masai

Jul 2024 – Apr 2025 | Bengaluru, Karnataka

- Built full-stack LMS features for course management, assessments, and learner workflows using **React.js, Node.js, Express.js, and MongoDB**, owning UI, API, and database layers end-to-end; designed REST APIs and improved MongoDB query performance via indexing and aggregation optimization.
- Built AI-powered learning assistants using **LlamaIndex, Qdrant, LangGraph, Llama 3, and Whisper** for semantic content retrieval and conversational responses grounded in course material.

PROJECTS

ATS Resume Scorer | *FastAPI, spaCy, Sentence Transformers, Groq (Llama 3), Supabase, Streamlit*

- Built a production **FastAPI** service that parses PDF/DOCX resumes, extracts structured skill data with **spaCy**, and computes resume-to-job semantic similarity using **Sentence Transformers** for quantitative match scoring.
- Integrated **Groq-hosted Llama 3** for category-specific resume feedback, added Supabase authentication with Google OAuth 2.0, and deployed behind a Streamlit interface.

EDUCATION

B.Tech, Electronics and Communication Engineering — Technocrats Institute of Technology, Bhopal | 2021

Certifications: Prime-Apna College (AI/ML) — Course Completion Certificate | Xto10 Hackathon — Masai School