

ANKIT RAJENDRA SINGH

Full Stack Engineer — Backend-Focused

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PROFESSIONAL SUMMARY

Backend-focused Full Stack Engineer building production-grade platforms with React frontends, Node.js and Django backends, stateless authentication, async worker pipelines, Redis queues, and AI-powered services. Experienced in designing ETL data pipelines, multi-source API aggregation, idempotent upsert systems, and cloud-deployed REST APIs with custom security middleware. Strong in both UI architecture and distributed systems design with hands-on experience in production observability, security-first API design, and scalable microservice patterns.

CORE TECHNICAL SKILLS

Languages: Python, TypeScript/JavaScript

Frontend: React 18, Next.js 14, Vite, TanStack Query, Redux Toolkit, Tailwind CSS, Framer Motion, React Hook Form

Backend: Node.js, Express.js, Django, FastAPI, RESTful API Design, JWT Authentication, Zod, bcrypt

Real-Time & Distributed: WebSockets, Socket.IO, AsyncIO, Redis, Bull Queues, Celery, Event-Driven Architecture, Microservices

Databases: MongoDB, PostgreSQL, Redis, Mongoose ODM, Database Indexing, Query Optimization

DevOps & Tooling: Docker, CI/CD, Git, ESLint, Jest, Supertest, Windows Task Scheduler

Observability & Security: Prometheus, Sentry, Winston, OpenTelemetry

KEY PROJECTS

Capsule — Secure AI-Moderated Media Platform

Live: capsule.topiiaa.site | github.com/Topiia/Capsule

Tech: Node.js, Express, MongoDB, Redis, Bull Queue, React, JWT, Prometheus, Sentry

- Engineered stateless JWT auth with HttpOnly cookie delivery, refresh-token rotation, and reuse detection.
- Built Redis-backed Bull pipelines for AI content moderation, email delivery, and async background processing.
- Implemented AI pre-moderation scoring pipeline to auto-flag unsafe media before publication.
- Production observability via Prometheus, Sentry, and structured logging; 162/162 tests passing.
- React 18 + Vite frontend with TanStack Query optimistic UI, 7-theme CSS engine, and code-split routing.

Topia Job Aggregator — ETL Pipeline & Job Dashboard

Live: jobs.topiiaa.site | github.com/Topiia/job-aggregator-pipeline

Tech: Python, FastAPI, MongoDB Atlas, React, TypeScript, Vite, Railway, Vercel

- Built multi-source ETL pipeline aggregating RemoteOK, HackerNews, and Arbeitnow into a unified MongoDB schema.
- Idempotent upsert logic using composite source::external_id as _id — deduplication enforced at DB level.
- Isolated scraper to residential IP to bypass cloud IP bans; clean read/write path separation via FastAPI.
- Custom ASGI middleware for rate limiting (100 req/min) and bot filtering before any DB I/O.
- Deployed on Railway + Vercel with custom domains, CORS lockdown, and GitHub-triggered CI/CD.

CryptoDash & System Pulse — Real-Time Streaming Projects

- Real-time crypto dashboard with WebSocket price streaming, AsyncIO services, and live health monitoring.
- Server metrics platform streaming CPU, memory, and service health via Redis-backed event-driven pipeline.

PROFESSIONAL EXPERIENCE

Python & Django Backend Intern

MIRA Advanced Engineering — Jan 2024 – Mar 2024

- Built backend modules and CRUD APIs using Django and Django REST Framework.
- Implemented REST endpoints and backend validation logic for internal applications.
- Assisted in API integration and backend data processing workflows.

EDUCATION

Bachelor of Engineering (Electronics & Telecommunication)

Terna Engineering College — 2021–2025

Higher Secondary Education (HSC) — 2021

Secondary (SSC) — 2019

CERTIFICATIONS

Technical Training — Kamal Classes, Thane (2023–2024)

- Python with Data Structures & Data Science (Dec 2023) — Cert No: PYDE23109

- Django Web Framework & REST API (Jan 2024) — Cert No: DJ24JF109

- Machine Learning & Flask Deployment (Mar 2024) — Cert No: MLMA24157

- Natural Language Processing — NLP (Apr 2024) — Cert No: NLPTHAP24132