Aditya Yadav

Mumbai, Maharashtra, India
Contact · Mail · Github · Linkedin

SUMMARY

AI Backend Engineer focused on building production-grade retrieval systems, real-time AI applications, and secure backend architectures. Experienced in designing RAG pipelines, semantic search infrastructure, and scalable communication systems using modern AI tooling. Proven builder with hackathon-winning products and strong security exposure through active CTF participation. Known for taking ownership of backend systems and shipping solutions that prioritize performance, reliability, and practical deployment.

EDUCATION

KJ Somaiya Engineering College 2024 – 2028
B.Tech in Computer Science and Business Systems CGPA: 9.2

TECHNICAL SKILLS

Languages	C/C++, JavaScript, Java, SQL
Backend	Node.js, Express.js, Authentication/Authorization, WebSockets, Real-time Systems, Threat-Aware API Design.
Databases	MongoDB, PostgreSQL, Supabase, Vector Database(Qdrant,Fiass), Schema Design
GenAI	RAG Architecture(LLamindex, Langchain), LLM Application Design, Semantic Search, Prompt Workflows
Tools	Git/GitHub, Postman, VS Code, IntelliJ, Figma, Vercel
Security (CTF)	Web Exploitation, OSINT, Forensics, Burp Suite, OWASP ZAP, Nmap, Wireshark.

EXPERIENCE

Backend Engineer Intern — InSync Solutions (Remote) Nov 2025 – Present

- Engineered backend services supporting analytics and marketing workflows, improving event tracking consistency across web platforms.
- Designed backend-driven endpoints for Google Tag Manager and Meta Pixel integrations, standardizing payload structures and reducing data discrepancies.
- Implemented validation layers, structured logging, and robust error handling to significantly improve API reliability and debugging efficiency.
- Owned MongoDB data workflows and contributed backend utilities in Flask to support internal tooling.

Backend Developer Intern — Technolaza Solutions Nov 2025 – Dec 2025

- Architected and delivered production-style backend modules across multiple internal applications with clean service organization and scalable API design.
- Built a real-time chat infrastructure supporting 1:1 and group messaging using Socket.IO and WebSockets, enabling low-latency communication.
- Designed authentication and access control mechanisms securing protected routes and messaging workflows.
- Led datastore integration using MongoDB with Supabase-backed redundancy for critical data flows.

Backend Developer — Suvidha Foundations (Remote) May 2025 – Jul 2025

- Led end-to-end backend development for the organization's website and dedicated job portal, owning API architecture and service design.
- Engineered RESTful services enabling seamless frontend integration and reusable backend patterns.
- Designed relational schemas and implemented optimized CRUD workflows using PostgreSQL.
- Strengthened platform reliability through authentication systems, validation layers, and deployment improvements.

PROJECTS

FloatChat — AI Retrieval Chat Backend

- Architected a scalable AI chatbot backend orchestrating data flow across services and retrieval components.
- Implemented semantic search over 5,000+ indexed documents using Qdrant, enabling fast and context-aware responses.
- Optimized retrieval pipelines to improve answer relevance and reduce query latency.

- Designed the system with production-style modularity to support future horizontal scaling.

Healthcare Chatbot — Hackathon Winner

- Engineered the backend architecture for a hackathon-winning healthcare chatbot featuring agent-based communication and retrieval-augmented generation.
- Built privacy-first storage by integrating IPFS for user files and maintaining immutable response history on-chain.
- Owned APIs, orchestration logic, and data flow while contributing to a lightweight React interface.
- Balanced AI capability with strong security and data integrity principles.

RakshaKosh — Offline Knowledge Retrieval System

- Built a fully offline ingestion and semantic retrieval pipeline enabling private document search without external APIs.
- Designed a custom chunking strategy improving contextual retention across unstructured datasets.
- Integrated LangChain indexing with local vector storage and on-device LLM inference, ensuring complete data isolation.
- Executed model testing and pipeline tuning to deliver reliable, self-contained knowledge retrieval.

ACHIEVEMENTS & ACTIVITIES

- Hackathon Winner (Periscope Technologies): Built a privacy-focused healthcare AI system with agentic workflows and blockchain-backed data integrity.
- Finalist — IIIT Hackathon: Recognized for developing an offline LLM-powered knowledge platform enabling secure, private semantic search.
- Active Capture The Flag (CTF) participant with hands-on experience in web security, OSINT, and vulnerability analysis.
- Consistently explore offensive and defensive security practices to build threat-aware backend systems.