

Sumit Jagtap

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CSE (Data Science) student building production-grade AI systems across search, finance, healthcare, and enterprise domains. Specialized in Generative AI, NLP, and scalable system design with a strong focus on reliability, observability, and real-world deployment.

Education

B.Tech, CSE — Data Science — *Ajeenkya D Y Patil University × NxtWave* 2025 – 2029

Experience

AI & Full-Stack Developer — *Independent* 2025 – Present

- Designed and deployed multiple end-to-end AI systems across 5+ real-world domains
- Focused on production readiness: fault tolerance, model reliability, and scalable APIs
- Built systems integrating ML models, backend services, and user-facing applications

Projects

FlipSearch — AI Semantic Search System | SBERT · FAISS · BM25 · RAG · Docker

- Hybrid retrieval on 205K+ documents; MRR 0.89, NDCG 0.81 using hybrid scoring ($\alpha=0.6$)
- Multilingual (Hindi + English) + voice search pipeline deployed on Hugging Face

ML Reliability Platform for Text Intelligence | Circuit Breakers · PSI · Jensen-Shannon

- Fault-tolerant ML with fallback orchestration (primary LLM + deterministic local models)
- Drift detection, request tracing, logging, and abuse detection observability stack

AI-Powered Bank Statement Analysis Platform | OCR · JWT · React · FinTech

- Full-stack FinTech using OCR + AI for transaction extraction with secure JWT API layer
- Analytics dashboard for financial insights with rate limiting and Redis caching

AI Sentiment Analysis Web App | DistilBERT · Flask · Docker

- NLP system with dual inference (transformer + embedding-based) and confidence scoring
- REST APIs with prediction tracking; containerized and deployed using Flask + Docker

Voice Sentiment Analysis System | Whisper · NLP · Real-time

- Real-time speech pipeline with Whisper + NLP for low-latency emotion classification

Molecule Studio — 3D Molecular Visualizer | WebGL

- Interactive 3D visualization platform optimized for cross-device performance (WebGL)

Technical Skills

Languages: Python, JavaScript, SQL, C++

AI / ML: Generative AI, NLP, Transformers, RAG, SBERT, FAISS, DistilBERT, Whisper

Frameworks: Flask, FastAPI, React

Databases: MongoDB, PostgreSQL, Redis

Tools: Docker, Git, Hugging Face, Firebase, Supabase

Concepts: MLOps, System Design, REST APIs, Observability, Authentication

Certifications & Achievements

- JPMorgan Chase & Co. Software Engineering Virtual Simulation — Forage
- Generative AI Mastery — OpenAI Academy × NxtWave
- NIAT Masterclass — LLM Embeddings & Applications