

ADITYA SHUKLA

AI Engineer · LLMs, Agents & Applied ML

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EDUCATION

Vivekananda Global University, Jaipur, India

Jun 2023 – Present

Bachelor of Technology in Computer Science and Engineering — GPA: 9.0/10

Relevant Coursework: Data Structures & Algorithms, DBMS, OOP, Operating Systems, Computer Networks

EXPERIENCE

MuTerra Labs

Jun 2025 – Aug 2025

Software Development Intern · Blockchain / Web3

- Engineered on-chain business logic from tokenomics requirements, enabling the platform to process transactions for **5,000+ daily active users**.
- Integrated blockchain SDKs across 3+ Hive dApps (Muterra, Radiffect, Mole Miner) on a biweekly sprint cycle.
- Optimized PostgreSQL queries for complex tokenomics data, improving transaction-processing efficiency at scale.

PROJECTS

GitMind — AI-Powered Git History CLI (Multi-Agent) — github.com/vastavikadi/gitmind

Python · LangGraph · LangSmith · Gemini API · ChromaDB · PyPI

- Built an open-source **multi-agent CLI**, orchestrated with LangGraph, that answers natural-language questions about Git history by routing queries across **7 specialist agents** (History, Recovery, Code, GitHub, Suggest, Project, Docs).
- Engineered **19 custom LangChain tools** for git inspection (log, blame, reflog, diff) and integrated Tree-sitter AST parsing across Python, JavaScript, and TypeScript for function-level change tracking.
- Implemented a **semantic search layer** embedding commit, PR, and issue history into ChromaDB; published to PyPI as **gitmind-cli** (MIT) for one-command install.

Multimodal Job Extractor — LLM Data Pipeline — github.com/vastavikadi/multimodal-job-extractor

Python · EasyOCR · Faster-Whisper · Gemini 2.0 Flash · Astra DB

- Developed a **multimodal pipeline** converting Instagram job reels into structured records across 3 input formats (audio-only, text-only, mixed) using OCR and speech recognition.
- Fused OCR text and audio transcripts and prompted an LLM to extract structured fields (role, location, requirements) with schema-validated output.
- Persisted extracted records in DataStax Astra DB for structured querying and downstream use.

Tama — AI Companion App, LLM & Memory Backend — usetama.me

OpenRouter · LLM Orchestration · PostgreSQL · Supabase Edge Functions

- Designed the LLM backend for an AI companion app (RevenueCat Shipaton 2026) with a **tiered OpenRouter model-routing strategy** — stronger models for live chat, cheaper models for background summarization and fact extraction.
- Built a **4-layer memory system** (working, recent, long-term facts, episodic) assembled server-side into every prompt, with a background fact-extraction job populating a flexible key/type/value user model for relevance-ranked retrieval.
- Implemented an independent, low-latency **crisis-language detection path** plus prompt-level behavioural guardrails, decoupled from the persona/memory pipeline for fail-safe operation.

Deber — Hybrid Semantic Search Engine (Go) — github.com/vastavikadi/deber

Go · HuggingFace Embeddings · Qdrant · PostgreSQL · Docker

- Engineered a two-pass **hybrid retrieval pipeline** merging PostgreSQL TF-IDF keyword search with semantic vector search over HuggingFace embeddings in Qdrant, combined by a weighted ranker.
- Built the ingestion path — a concurrent Go crawler feeding an NLP → inverted-index → embeddings pipeline — served via a paginated REST API with a 24h re-crawl scheduler.

TECHNICAL SKILLS

AI / ML: LLM Integration, Agentic Workflows, Multi-Agent Systems, RAG, Semantic Search, Prompt Engineering, OCR, Speech-to-Text

Frameworks & APIs: LangGraph, LangSmith, LangChain, OpenRouter, Gemini API, HuggingFace, Faster-Whisper, EasyOCR

Vector & Data Stores: ChromaDB, Qdrant, Astra DB, PostgreSQL, MongoDB, Redis, Neo4j

Languages: Python, Go, JavaScript, TypeScript, SQL, C++, Java

Backend: FastAPI, Node.js, Express, Supabase Edge Functions, REST API Design, GraphQL

DevOps & Tools: Docker, GitHub Actions, AWS EC2, Vercel, Git, PyPI, GCP

ACHIEVEMENTS

IIT Delhi Tryst Hackathon — 1st Place

[Mar 2025](#)

Led a team to build BeatBrawls, a Web3 music gaming platform (4,000+ players) — 1st in a 36-hour hackathon.

Hack Web3Conf (Global) — Top 100 Finalist

[Dec 2024](#)

Reached the global Top 100 among thousands of competing teams.

Code Hive SinuSoid Hackathon, NIIT University — Top 5

[Nov 2024](#)

Architected LifeVault, a decentralized IPFS storage platform with blockchain-verified metadata and AES hybrid encryption.