

Harsh Tripathi

harshtripathi752@gmail.com | +91 7977292476 | github.com/hash880 | linkedin.com/in/hash02

Languages & Technologies

Languages: TypeScript, JavaScript, Python, Go, SQL, C++ (DSA)
Backend & APIs: Node.js, Express, FastAPI, REST, GraphQL, gRPC, WebSockets, Microservices, OAuth 2.0, JWT
GenAI & LLM Systems: self-hosted LLMs (SGLang, Qwen3, Llama), LangGraph, LangChain, RAG, structured decoding
Databases & Search: PostgreSQL, MongoDB, MySQL, Redis, Elasticsearch, Neo4j, FAISS
Messaging & Async: Kafka, Celery, Redis queues, event-driven architecture, dead-letter queues, idempotent workers
Cloud & DevOps: AWS (Lambda, EC2, S3, ECS, API Gateway), GCP, Docker, Kubernetes, GitHub Actions CI/CD, Linux
Web3: Solana, Anchor (Rust), program-derived accounts, on-chain escrow

Work Experience

Real Value Infospace — Property Data Platform for Banks & Valuers Mumbai, India
Software Engineer — AI & Backend Infrastructure Aug 2026 – Present

DeedGraph — Entity Resolution over 40M Property Registrations (*Python, SGLang, Qwen3-14B, Elasticsearch*)

- Running a 40M-record backfill that turns messy Marathi and English registration deeds into structured property data for the company's bank and valuation clients, on a self-hosted Qwen3-14B at ~4.3 docs/sec and 99.9% success.
- Matched 330k reference entities to noisy records at 0.92 recall@5 with fuzzy retrieval, evidence scoring, and LLM verification, behind a crash-safe 56-worker runner (checkpoints, circuit breaker, idempotent writes).

DeedWatch — Registration Monitoring & Alerts for Lenders (*Express, Next.js, MongoDB*)

- Built a live monitoring product paid for by public-sector banks and valuation firms: flags new registrations on watched properties and sends institutional PDF reports by email and Telegram.
- Made client billing retry-safe with an idempotency-keyed prepaid-wallet ledger, so a retried job can never double-charge; lease-coordinated cron jobs and ~725 tests.

Software Engineer Intern Sep 2025 – Aug 2026

Brandflow — Autonomous Multi-Agent Marketing Platform (*Python, LangGraph, Neo4j, MongoDB*)

- Built solo the platform the in-house marketing team uses to plan and publish campaigns: 6 LangGraph agents handle trend scouting, content strategy, and UGC generation across 5 social platforms.
- Grounded the agents in a Neo4j GraphRAG catalog (vector + full-text) and connected Meta, LinkedIn, and Google/YouTube via OAuth 2.0 with encrypted tokens and HMAC-verified webhooks.

LeadRelay — AI Sales Agent & Campaign Engine (*FastAPI, Celery, Redis, MongoDB*)

- Built the WhatsApp and email outreach system the marketing team runs campaigns on: an LLM sales agent with human handoff and a daily spend cap, and bulk campaigns that resume from checkpoints.
- Kept sends within provider rate limits using backoff retries into a replayable dead-letter queue; imports ~24k-row contact lists from CSV, Excel, and PDFs with dedup; 115 tests in CI.

Deepneurons AI Services — AI Development Agency Remote
Full-Stack Engineer Jul 2025 – Aug 2025

- Built ReviveWorks.io's provider-matching platform on serverless AWS (Lambda, API Gateway, S3), with a directory index scraped and normalized from YellowPages and similar sources.
- Shipped an SEO-optimized Next.js frontend (SSR, JSON-LD) that reached first-page Google rankings within weeks.

Projects

CloutBets — On-Chain Prediction Markets for Social Metrics (*Rust, Anchor, Solana, Node.js*) cloutbets.fun

- Built at the Colosseum Cypherpunk Hackathon: parimutuel pools on creators' social metrics, escrowed in program-derived accounts with on-chain payouts; a resolver settles them from YouTube, Reddit, X, and TikTok data.

SaigonBot — Grounded RAG Assistant for Developer Communities (*Python, LangChain, Llama 2, FAISS*)

- Built a Telegram assistant for a Superteam Vietnam bounty that answers from uploaded docs with local Llama 2 and FAISS, refuses low-confidence answers, and posts only after human approval.

Education

University of Mumbai 2022 – 2026
B.E. in Computer Engineering CGPA: 8.75 / 10

Awards & Achievements

- 1st Runner-Up, Level-Up National Hackathon** (KJ Somaiya): led the team to a Rs. 30,000 prize.
- Open Source:** contributor to GSSoC 2024 and Social Summer of Code (SSoC).