

Saunak Ghosh

+91-7439620266 | saunakofficial10@gmail.com | [linkedin.com/in/saunak-ghosh10](https://www.linkedin.com/in/saunak-ghosh10) | github.com/Saunakghosh10 | saunakghosh.dev

EDUCATION

Vellore Institute of Technology (VIT)

B.Tech in Computer Science and Engineering (GPA: 8.55/10.0 – Top 15% of Cohort)

Vellore, India

July 2020 – June 2024

EXPERIENCE

Software Engineer (AI & Backend)

July 2026 – Present

CargoFirst

Bangalore, India

- Architected **Blinkus AI**, an AI-native global trade platform orchestrating **7 domain co-pilots** (Risk, Contracts, Finance) via **Google Gemini** function calling and **Next.js 16**.
- Engineered a **RAG pipeline** over PDFs using **pgvector** and a **620K+ row** analytics engine; streamed reasoning and structured tool calls via **Server-Sent Events (SSE)**.
- Integrated automated sanction screening (**Tavily/OFAC**), live market data feeds, and **Razorpay** billing with server-side RPC quota enforcement and webhook idempotency.

Software Engineer (AI & Backend)

April 2026 – July 2026

Takkada

Remote

- Orchestrated deterministic business-onboarding state machines using **LangGraph**, eliminating multi-tenant data races and async failures in a high-throughput SaaS environment.
- Built a production AI assistant with hybrid **RAG** (dense vectors + BM25) served via **FastAPI** async workers, cutting inference latency by **40%** under concurrent load.
- Resolved critical edge cases across event-driven sync pipelines, Flutter ERP integrations, and webhook payment reconciliation; authored post-mortem specs preventing recurring failures.

Software Engineer (AI & Backend)

April 2025 – April 2026

HCLTech

Lucknow, India

- Architected a generative AI fine-tuning pipeline for LLMs (TinyLlama) on **Azure Machine Learning**, achieving **85% accuracy** on domain datasets using PEFT/LoRA adapters.
- Developed **Lumi**, an enterprise AI chatbot leveraging **LangGraph** for multi-agent orchestration, hybrid retrieval (BM25 + pgvector), and cross-encoder re-ranking.
- Automated CI/CD deployment pipelines using **Azure DevOps** and Docker, reducing application deployment time by **40%** via zero-downtime rolling deployments.

Full Stack Engineer

May 2024 – March 2025

Adaapt.ai

Remote, India

- Integrated LLMs into core workflows via **pgvector** RAG pipelines; engineered a **WhatsApp chatbot (Twilio API)** achieving **85% semantic accuracy** at scale.
- Automated vendor interaction workflows handling **500+ daily transactions**, reducing overhead by **90%**; optimized Node.js REST APIs and PostgreSQL connection pooling.

PROJECTS & OPEN SOURCE

SarvamVoice | Sovereign Voice AI Support Platform | FastAPI, LangGraph, LiveKit, Kafka, Docker

2026

- Architected a sovereign multi-agent voice AI platform using a **7-node LangGraph** mesh with **Sarvam AI** APIs for real-time **11-language** support at sub-second latency.
- Built hybrid vector-keyword RAG (ChromaDB + BM25), SSE streaming, and **LiveKit WebRTC** distributed workers; achieved a **78.7% LLM-Judge** quality score.

OpenEmergent | Multi-Agent AI Code Orchestrator | Next.js 16, LangGraph, E2B, Prisma, Neon

2026

- Built a self-hostable AI application builder powered by a **9-agent LangGraph** mesh for executing sandboxed agentic coding workflows with full observability and retry logic.
- Engineered secure cloud execution environments using **E2B** sandboxes and **Docker**; orchestrated multi-provider AI agents and async tasks via **Inngest**.

InfinityUI | Production Motion Component Library | React 19, Tailwind v4, Framer Motion, GSAP

2026

- Shipped a React component library with **37+ production animated components** (3D swipe carousels, WebGL backgrounds) with zero-dependency tree-shakeable distribution.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, SQL, C++, Bash, HTML/CSS

Backend & AI: Node.js, FastAPI, LangGraph, LangChain, LiveKit WebRTC, RAG (pgvector, ChromaDB), Gemini, OpenAI

Frontend & Web: React 19, Next.js 16, Tailwind CSS v4, Framer Motion, GSAP, REST APIs, GraphQL, tRPC

Database & Infra: PostgreSQL, Supabase, Redis, Docker, Kubernetes, AWS, Azure, Kafka, Inngest, CI/CD, Prisma

ACHIEVEMENTS & LEADERSHIP

- Web Dev Lead, Advitya Fest (VIT):** Led a 5-person engineering team to design, build, and maintain a high-availability React + Node.js event portal sustaining **100,000+ concurrent active users** during peak load with zero downtime.