

Abhinav Musrif

Forward Deployed Engineer | Backend & AI Systems

Forward Deployed Engineer and Backend & AI Systems Engineer focused on turning product requirements into deployed AI-powered systems. Experience across FastAPI backends, PostgreSQL/Redis data layers, Azure deployment pipelines, Docker, CI/CD, semantic retrieval, LLM orchestration, authentication, billing infrastructure, and Android-ready delivery.

Hyderabad, Telangana, India
abhinavmusrifcs@gmail.com
abhinavmusrif.me
linkedin.com/in/m-abhinav-cs
github.com/Build4mBottom

Core Skills

Languages	Python, TypeScript, JavaScript, Kotlin, SQL, C++
Backend & Infra	FastAPI, REST APIs, async programming, PostgreSQL, JSONB modeling, Redis, SQLAlchemy, Alembic, Docker, Linux
Cloud & DevOps	Microsoft Azure, Azure App Service, GitHub Actions, CI/CD, Git, deployment debugging, startup hardening
AI Systems	LLM orchestration, RAG pipelines, semantic retrieval, vector databases, embeddings, product memory, AI agents
Product Systems	Firebase IAM, OAuth 2.0, Google auth, session handling, Razorpay billing, plan catalog synchronization
Frontend & Mobile	Next.js, React, Tailwind CSS, Android, Kotlin, Jetpack Compose, Material 3, APK build flow
AI Tools	Codex, Cursor, Google Antigravity, Windsurf, VS Code

Experience

Forward Deployed Engineer - Amretra Dynamics

Founder, Backend & AI Systems Engineer | Jan 2026 - Present | Hyderabad, India

- Architected and deployed backend infrastructure for Chitraagni using FastAPI, PostgreSQL, Redis, and Docker.
- Managed Azure cloud deployment workflows, CI/CD pipelines, and environment-based production configuration.
- Built product-memory layers using semantic retrieval patterns, embeddings, and RAG-oriented architecture.
- Developed agentic workflows with memory-first planning, guarded tool execution, checkpoints, and recovery patterns.
- Integrated OAuth/Firebase IAM authentication and Razorpay billing infrastructure with plan catalog synchronization.
- Worked across backend APIs, Next.js product flows, and Android-ready delivery surfaces.

Selected Projects

Chitraagni

Full-stack AI product intelligence platform at Amretra Dynamics, built around backend infrastructure, product memory, semantic retrieval, AI workflows, authentication, billing, deployment, frontend surfaces, and Android-ready delivery.

AI-Powered Video Creator for Education

Built a backend-focused AI content generation pipeline that converts learning topics into structured scripts and video-planning artifacts using LLM/NLP workflows, async orchestration, and repeatable content workflow execution.

IoT-Enabled Autonomous AgriBot

Designed an ESP32-based smart farming prototype with environmental sensors, real-time telemetry, edge control logic, mobile monitoring, and irrigation/fertilization automation; improved water-use efficiency by 30% through logic-driven control.

Education & Certifications

Vellore Institute of Technology, Chennai - B.Tech, Computer Science and Engineering (Sep 2021 - Sep 2025)

- Microsoft Azure AI Fundamentals
- NVIDIA DLI - Fundamentals of Deep Learning
- Distributed Database System: CouchDB, VIT, Aug 2024, ID vit202406080022
- AWS Academy Graduate - Cloud Foundations, AWS, Aug 2023, ID f5495484-44e7-487d-b7a7-9d7069dc0967