

KSHITIJ NARAYAN KULKARNI

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EDUCATION

Dayananda Sagar College Of Engineering

Bengaluru, India

B.E in Computer Science and Engineering

2022 - 2026

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Go

Databases: Firestore, Pinecone Vector Database, PostgreSQL, Redis, MongoDB

Frameworks: React, Next.js, Node.js, Express.js, NestJS, FastAPI, Django, Bun, Hono, Tailwind CSS, Firebase

AI/Devops: RAG, Vector Search, Embedding, Docker, Kubernetes, Google Cloud Run, Cloud Build, GitHub Actions, Git

EXPERIENCE

Stealth Startup (OwlAI) | Software Engineering Intern | Bengaluru, India

Apr 2025 – Present

- Architected a production-facing AI learning platform for UGC NET and government-exam preparation using **Next.js**, **TypeScript**, **NestJS**, **FastAPI**, **Firebase Auth**, **Firestore**, and **Pinecone**.
- Engineered a **Retrieval-Augmented Generation** pipeline with **Pinecone vector search**, **FastAPI retrieval services**, context assembly, and LLM API integration to deliver grounded, citation-aware AI responses.
- Designed backend orchestration services connecting frontend clients, authentication, **Firestore**, **Pinecone**, and AI services, implementing token verification, rate limiting, CORS policies, request tracing, structured error handling, and secure REST API workflows.
- Implemented real-time learning workflows for AI chat, conversation history, quiz analytics, learning progress tracking, and adaptive mock-test experiences across mobile and desktop interfaces.
- Developed internal **CRM** and **LMS** workflows using **Bun**, **Hono**, **TypeScript**, **Firestore**, RBAC, tenant scoping, workflow state management, import validation, and server-side business rules.
- Implemented CSV and XLSX import workflows with parsing, normalization, duplicate detection, validation checks, batched commits, and audit-friendly data handling for internal CRM operations.
- Productionized containerized services using **Docker**, **Google Cloud Run**, **Cloud Build**, **Artifact Registry**, **Firebase Hosting**, **Secret Manager**, and **GitHub Actions** to improve deployment reliability, service isolation, and configuration management.

PROJECTS

TitanGate - Production Grade API Gateway | *Go, Fiber, Redis, JWT, Prometheus* | [GitHub](#)

- Architected a **Go-based API Gateway** with reverse proxy routing, round-robin load balancing, dynamic service discovery, automatic health checks, and downstream microservice traffic management.
- Implemented **JWT authentication**, per-IP rate limiting, request and response transformation, IP filtering, Redis-backed caching, in-memory LRU caching, response compression, Prometheus metrics, health endpoints, and a real-time monitoring dashboard.

Kommito - Lightweight Version Control System | *Go, Cobra, SHA-1, JSON, CLI* | [GitHub](#)

- Engineered a **Git-inspired version control system** in Go with repository initialization, file staging, commit metadata, branch management, merge operations, checkout workflows, and repository cloning.
- Designed a **SHA-1 content-addressed object store** with atomic writes, hash validation, safe branch handling, structured file-system storage, and a modular Cobra-based CLI for reliable developer-friendly version tracking.

ACHIEVEMENTS

- Selected as a **LiFT Scholar 2025** for the **Linux Foundation Training Scholarship**, awarded to **500 recipients worldwide**. [LinkedIn](#)
- Won **Smart India Hackathon 2025** by building an **AI-powered counterfeit IC detection system** for electronic component authenticity verification. [LinkedIn](#)
- Secured **Runner-Up at Go for Gofr Hackathon 2025** for building a **Golang-based project** using the **Gofr framework**.
- Secured **3rd Place at SJIC Hackathon 2026** by building an **interactive 3D educational learning platform** for student engagement and concept visualization.