

DEEPAN R

A curious developer focused on systems, security, and scalable software

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EDUCATION

Shiv Nadar University, Chennai

Aug 2024 – Jul 2028

B.Tech – Computer Science & Engineering · 3rd year (penultimate)

CGPA: 8.03 / 10

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

EXPERIENCE

Hoku | Lead Engineer (Cloud, Platform & AI) [Cert](#) [↗](#)

June 2025 – Jan 2026

Hyper-personalized AI shopping app for local vendors that tailors recommendations to each user's wardrobe, style, colors, and body measurements.

- Architected a scalable, stateless **Express.js** backend cluster using **PM2** behind an **Nginx** reverse proxy, achieving zero-downtime deployments for **1,000+ active users**.
- Orchestrated a durable asynchronous workload pipeline using **Redis** and **BullMQ** to handle heavy AI tasks (embeddings, tagging, image generation), preventing event-loop blocking and maintaining low app latency.
- Engineered an **LLM router** with automated, health-checked failover (OpenAI to Gemini), paired with **pgvector** similarity search and Redis caching for sub-second product matching.

NetworkGeek | Software Engineer Intern [Cert](#) [↗](#)

Nov 2025 – Dec 2025

- Led the end-to-end development of the institute's flagship mobile app solo in **Flutter**, deploying to the **iOS App Store** and **Google Play Store** for **3,000+ active students**.
- Integrated cross-platform clients with a legacy **PHP** backend, synchronizing video streaming pipelines (665+ lessons), real-time leaderboards, and test engines across web and mobile.

Miniture | Software Engineering Intern [Cert](#) [↗](#)

Jan 2026 – Present

- Shipped customer-facing features for a high-traffic production **Shopify** storefront serving **10,000+ users**, while concurrently developing the company's cross-platform mobile application.
- Overhauled a broken data analytics pipeline on **Windmill** and **Kubernetes**, delivering accurate, real-time sales, traffic, and conversion reporting for the growth team.

PNA | Founding Engineer

2026 – Present

Founding engineer (with senior lead) building a carbon-emissions tracking platform for enterprise financial clients.

PROJECTS

Reelm | Video Infrastructure SaaS [↗](#)

2026

Built a multi-tenant video-infrastructure SaaS, a flat-priced alternative to **Mux**, **Cloudflare Stream**, and **Bunny**: customers upload video, get adaptive HLS transcoding, and stream unlimited while paying only for storage (zero egress). Built end to end on a Hono API on Cloudflare Workers, an FFmpeg/Shaka transcode pipeline, a typed SDK, an embeddable player, and a dashboard, with PostgreSQL row-level tenant isolation.

GymLabs | White-Label Multi-Tenant Gym SaaS [↗](#)

2026

Architected a solo-built, 61k LOC TypeScript monorepo providing fully branded web/mobile platforms for fitness brands. Enforced strict data isolation across 33 relational tables using **PostgreSQL Row-Level Security (RLS)** and subdomain routing. Built a race-safe concurrent booking and payment ledger using row locks; currently live with **early paying gyms in Chennai**.

AgentOS | Agentic Mobile OS (prompt to deployed app) [↗](#)

2026

Architected a crash-safe, resumable compilation and deployment pipeline that translates natural-language prompts into containerized mobile apps. Built a state machine with a **two-tier LLM router** (Flash/Pro) for cost optimization and SSE live-progress streaming. Implemented a **mutex-guarded port registry** and isolated per-app docker-compose topologies with automated deployment retries.

TECHNICAL SKILLS

Languages: TypeScript, Java, Dart, JavaScript (*proficient*); Python, C/C++, Go, Kotlin, SQL (*familiar*)

Frameworks & Libraries: React, Next.js, Node.js / Express, tRPC, React Native, Flutter, Auth.js

Systems & Tools: PostgreSQL, Redis / BullMQ, Docker, Nginx, Kafka, Windmill, Kubernetes

Concepts: Distributed Systems, Concurrency, System Design, Application Security, Cryptography, Threat Modeling

LEADERSHIP & AWARDS

Leadership: Cybersecurity Lead, POC Coding Club · Class Representative · NSS Volunteer (80+ hrs)

Competitive Programming: ICPC Regional; **27th** – HP CodeWars (All India)

CTFs: **2nd** – Pragmaan (National); **Top 30 / 40K+** – Shaastra (IIT-M); **6th** – Codevinctii (International);

Winner – Edita; **Top 750** – Hack The Box

Hackathons: **Top 240 / 40K+** – SIH; **Runner-up** – SNUC Hacks

EXTRACURRICULAR

Content Creator | Authored 2 **Short Films** & multiple blogs | Currently writing a novel | District-level hockey player