ANUJ ANTHWAL

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Linkedin | GitHub | Portfolio

EXPERIENCE

Software Development Engineering Intern Oct 2025 – Feb 2026
Synegrow *Remote*

- Developed a decoupled payment adapter in NestJS using custom Axios interceptors and automated retry backoffs, reducing webhook checkout failure rates to under 0.5%.
- Designed a multi-tier MySQL schema for subscription coupon logic, implementing composite indexing to lower query execution latency by 35% under concurrent loads.
- **Tech Stack:** TypeScript, NestJS, MySQL, REST APIs

Open Source Contributor (SSOC 2025) Jun 2025 – Jul 2025
Social (Formerly Script Foundation) *Remote*

- Engineered features and resolved vulnerabilities across open-source repositories via structured pull requests.
- Collaborated directly with maintainers through thorough code reviews, standardizing error handling to improve stability.
- **Tech Stack:** Python, Rust, Git, GitHub

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, Rust, SQL
Frameworks & Libraries: Node.js, NestJS, Express.js, Next.js, React, TailwindCSS, Prisma
Agentic AI: Google Gemini API, LangChain, LangGraph, LLM Orchestration, Prompt Engineering, Structured Outputs, AI Agents
Databases & Cloud: PostgreSQL, MySQL, Redis, MongoDB, MinIO, AWS (RDS, S3, ElastiCache)
Tools & Platforms: Docker, Docker Compose, Git, GitHub, Linux, Nginx, Postman
Concepts & Architecture: REST APIs, Microservices, Asynchronous Processing, OOP, Rate Limiting, Caching Strategies

PROJECTS

MindFlow - Visual Knowledge & Architecture Graph Platform | *Next.js 16, React 19, TypeScript, Google Gemini, LangChain, Prisma, XYFlow, Dagre* Sep 2026

- Architected an AI extraction pipeline utilizing **Google Gemini** and **LangChain** with strict **Zod schema validation**, parsing complex technical documents and GitHub codebases into connected **Directed Acyclic Graphs (DAGs)**.
- Engineered a **multi-model fallback cascade** across Gemini Flash models with heuristic recovery, keeping extraction available when a model call fails or returns output that violates the schema.
- Integrated an interactive infinite canvas with **XYFlow** and an iterative **Dagre collision-resolution algorithm**, resolving multi-node overlaps and dynamically laying out 30+ concept nodes in real time.
- Built an on-demand concept deep-dive micro-service leveraging **Google Search Grounding**, generating production gotchas, live doc citations, and syntax-highlighted code examples.

Ticketly - Ticket Booking System | *React, NestJS, TypeScript, AWS (RDS PostgreSQL, ElastiCache Redis, S3)* Jun 2026 – Jul 2026

- Implemented **OAuth 2.0** (Google/Facebook) via **Passport.js** with **ElastiCache Redis** session storage and session fixation defense.
- Integrated **Stripe PaymentElement** with **PaymentIntent** workflows and webhook handlers using 3-point verification and raw-body signature checks.
- Built an AI search tool using **Google Gemini** & **LangChain** to parse natural-language queries into filters, with keyword fallbacks.
- Engineered **pessimistic row locking** in **RDS PostgreSQL** to prevent concurrent double-booking.
- Automated post-booking PDF ticket generation (**pdfkit**), **AWS S3** storage, and email delivery via **Nodemailer**.
- Improved performance and security with **Redis** caching (60s TTL, invalidated on create/delete/booking), a custom in-memory **rate limiter**, **Helmet**, **class-validator** DTOs, and CORS.

NotesBuddy - Notes Sharing Application | *TypeScript, React, NestJS, PostgreSQL, Docker* Feb 2026 – Mar 2026

- Architected containerized file-management infrastructure via **Docker**, integrating **MinIO** object storage, **ClamAV** malware scanning, and **PostgreSQL** for secure deployments; tested with **50+ beta users**.
- Mitigated database load by **40%** using an in-memory **OTP cache**, reducing auth latency by **180ms**.
- Deployed on a **Linux VPS**, configuring **Nginx** as a **reverse proxy** with **rate limiting**, and hardening the server with **UFW** and **SSL** certificates.

ACHIEVEMENTS

- Secured AIR-104 among 29,000+ participants in Unstop's weekly coding challenge.
- Ranked 108th overall in the Social Summer of Code 2025.
- Taught 4,000+ learners through technical videos.

EDUCATION

Uttarakhand Technical University Uttarakhand, India
Bachelor of Technology in Computer Science and Engineering *Aug. 2023 – May 2027*

CERTIFICATIONS

Postman API Fundamentals Student Expert Postman (Oct 2024)