Mayank Gupta

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Education

Birla Institute of Technology and Science — Pilani
Bachelor of Computer Science | CGPA: 8.67 — *Aug. 2024 – July 2027*

Experience

SDE Intern — June 2026 – Present
Scaler AI Labs Inc. — *Bengaluru, India*

- Architecting **reinforcement learning environments** for training and evaluating LLM agents — designing task specifications, **reward functions**, and deterministic sandboxed harnesses that emit verifiable reward signals
- Built environment tooling with seeded resets, step/observation APIs, and automated grading, running **containerized parallel rollouts** to support large-scale agent training runs

SDE Intern — Mar. 2026 – June 2026
Aurora (AuroraX Inc.) — *Onsite*

- Architected an end-to-end, cross-platform **push-notification system** on **Firebase Cloud Messaging (FCM)** modeling per-device installations with user-level preference channels and orchestrating delivery through **DBOS durable workflows** that fan out and **auto-retry per device**, reliably reaching both **Android & iOS (APNs)**
- Shipped core backend for a production **AI voice-agent commerce platform** — **pgvector**-backed hybrid semantic search, from-scratch **Twilio OTP + JWT** auth middleware, and **AWS Bedrock (Claude)** LLM features — and owned its cloud infrastructure on **GKE / Kubernetes (GCP)** with **Terraform, Helm, and CI/CD**

Founding Engineer — Feb. 2025 – Oct. 2025
TrackPrep Pvt. Ltd. — *Remote*

- Engineered a full-stack **NEET preparation platform** scaling to **85,000+ users** and **4,000+ DAU** with practice tests and video content
- Built high-availability infrastructure (**PostgreSQL** pooling via PgBouncer, Redis caching, CDN) and optimized queries with efficient indexing, improving response times by **40%** during traffic spikes

Projects

JEEOrbit | *JEE Preparation Platform* — **Link**

- Engineered a full-stack exam preparation platform with advanced question filtering, practice modes, and progress tracking; designed scalable architecture with **Neon PostgreSQL** connection pooling and staging environments
- Deployed production backend on **DigitalOcean** with PM2, Nginx reverse proxy, and SSL, implementing **Redis caching** for optimized database queries and continuous deployment

Founder Bridge | *Find Your Next Co-founder* — **Link**

- Built a founder-matching platform where entrepreneurs post startup ideas and connect with potential co-founders through skill-based filtering and profile discovery
- Architected the application using **Next.js** and **Firebase** for real-time data synchronization, authentication, and instant messaging between founders

GitHub PR Code Review Agent | *LangGraph.js, Hono, BullMQ, PostgreSQL, Claude 3.5 Sonnet* — **Link**

- Developed autonomous AI code review agent using **LangGraph.js** state machine with GitHub API integration and multi-model AI analysis (**Claude 3.5 Sonnet**), analyzing **20+ languages** across 100-file PRs in **<2 minutes**
- Architected scalable microservices (**Hono API + BullMQ + PostgreSQL**) handling **1000+ concurrent requests** with async job processing and **80% storage optimization**

Technical Skills

AI/ML: LLM Integration, Prompt Engineering, AI Agents, Reinforcement Learning / RL Environments, Agent Evaluation, AWS Bedrock, pgvector / Vector Search
Languages: JavaScript, TypeScript, Python, Go, Rust, Java
Frameworks: React, Next.js, Node.js, FastAPI, SQLAlchemy, Bun, Express, Hono, TailwindCSS, Zustand
Databases & ORM: PostgreSQL, MongoDB, Redis, Prisma, Drizzle, Alembic
DevOps: Docker, Kubernetes (GKE), Terraform, Helm, PM2, Nginx, SSL/TLS, CI/CD, GitHub Actions
Cloud & Tools: GCP, AWS, Vercel, DigitalOcean, Firebase (FCM), Git/GitHub, Postman