

YASH MITTAL

Software Engineer • AI Agents & Platform Infrastructure

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Education

National Institute of Technology, Kurukshetra

12/2020 – 05/2024

B.Tech., Computer Engineering — **CGPA 9.2/10, Gold Medalist**

Professional Experience

Eternal Ltd. (Zomato)

Gurugram — Onsite

Software Development Engineer 2

10/2025 – Present

- Designed and shipped the evaluation, benchmarking and testing harness for **Ether**, the company-wide internal AI platform, lifting execution reliability and accuracy from **40% to 78%**.
- Built an AI-driven documentation pipeline that maintains a real-time source of truth for Ether's tool catalogue, enabling teams to iterate on their tools without reverse-engineering behaviour.
- Led the design and rollout of the internal templatisation library, cutting defects in AI-generated code and shortening app build times.
- Authored the specification for the organisation-wide **Agent-as-a-Service** platform now used across teams to build and deploy agents.

Software Development Engineer 1

12/2024 – 10/2025

- Built the **Expansion Hub**, surfacing data-driven growth opportunities to merchants — forecasted order value, daily order volume, cuisine mix and order-size trends — personalised to each merchant's menu and business model.
- Redesigned and scaled Delivery Status Alerts for the web platform, **improving engagement by 50%** through better real-time communication.
- Engineered an internal integration engine that **freed 3 full-time headcounts** and became the standard for automating repetitive workflows across **Blinkit, Zomato, District and Hyperpure**.

SamagraX

Remote

Software Development Engineer 2

09/2024 – 12/2024

- Designed and implemented the configuration layer for **Bharat Sah'AI'yak (BSAI)**, unlocking adoption across new domains including health and EV.
- Onboarded external vendors onto BSAI to ship **Kumbh Sah'AI'yak**, an AI assistant serving travel information for the Maha Kumbh.
- Founding team member through BSAI's successful acquisition by **Ola Krutrim**.

Software Development Engineer 1

05/2024 – 09/2024

- Owned the agricultural AI chatbots powered by BSAI for **Odisha** and **Uttar Pradesh**, each serving **~200K+ queries/month** at **~300 concurrent users**.
- Scaled the cross-state orchestrator and WebSocket transporter microservices from **~100 req/sec** to **~10K req/sec** — a **100×** throughput gain.
- Designed and implemented conversational forms in **Bharat Sah'AI'yak**, comparable to **formless.ai**.
- Authored **specifications** and built **compilers** that let external teams generate large no-code configs from compact, editor-friendly spec files, **cutting their development time by 50%**.
- Drove end-to-end delivery of the **Bharat Sah'AI'yak** instance for the state of **Rajasthan**, shipped for a Chief Minister launch.

Software Development Intern — Work from Campus (WFC)

09/2022 – 02/2024

Sunbird — Unified Learner's Passbook (ULP) and Registry, Credentials & Wallet (RCW)

- Implemented the **W3C Verifiable Credentials Data Model v1.1** in RCW using **Decentralised Identifiers (DIDs)**.
- Delivered **ULP** — mandated by **NEP-2020** and piloted in Uttar Pradesh — which builds on RCW to credential academic progress reports.

Konnect Odisha and SkillEd: Training & Courses

- Built Konnect on **BeckN** — a specification for **decentralised, asynchronous open networks** — to enable **crop loan applications** on the **Odisha Government's Safal platform**.
- Shipped **SkillEd: Trainings & Courses**, the community reference application for BeckN's education and skilling adaptation.

- Technology used across both mandates: **NestJS**, **Fastify**, **PostgreSQL**, **Prisma**, **Docker & Docker Swarm**, **RabbitMQ**, **FusionAuth**, **Elasticsearch**, **Jenkins** and **Ansible**.

GMetriXR

XR0S Fellow

Remote

04/2023 – 06/2023

- Built the first version of the **APIs** for their **GPT**-based chatbot, generating **metaverse** experiences from **natural language prompts**.
- Automated the generation of standard **metaverse experiences** against GMetri's business needs using their in-house SDK; one tool is open-sourced at [🔗/gmetrixr/word-puzzle🔗](#).

American Express

Product Development and Analyst Intern

Gurugram — Hybrid

01/2023 – 06/2023

- Migrated **11 payment status codes** from the legacy payment authorisation system to the new cloud platform as part of the cloud migration.
- Ran User Acceptance Testing (**UAT**) and Post Implementation Verification (**PIV**), delivering an error-free migration of **20 variables** to the new system.

Seekamentor

Full Stack Developer Intern

Remote

03/2022 – 06/2022

- Shipped v1 of Seekamentor's website, covering registration, appointments and scheduling for their events and sessions.

Projects

Dough🔗

Self-hosted platform for building, running and collaborating on custom AI agents

- Sandboxed agent execution on **Firecracker microVMs**, orchestrated across a distributed machine pool via **Nomad** — hardware-level isolation on your own infrastructure.
- **SCIP**-based code intelligence pairing a graph index with **RAG** to give agents repository-aware context.
- Event listeners across **Slack**, **Discord**, **Telegram**, **GitHub**, **Asana** and **Linear** trigger agents from where work already happens.
- Persistent memory layer and cross-user agent collaboration, surfaced through **desktop and mobile** clients.

Stylus-DB: Stylus-SQL🔗 & Stylus-KV🔗

A database engine built from scratch in JavaScript — one SQL, one key-value

- Stylus-SQL ships a **CSV-based storage engine**, a **SQL query processor** and a custom **Prisma extension**.
- Stylus-KV implements the **RAFT consensus protocol**, guaranteeing consistency and fault tolerance across distributed servers.

Mentorship

Code for GovTech (C4GT)

Mentor — 2 consecutive cohorts

Remote

2023 & 2024

- Mentored contributors on **cQube Ingestion🔗**, a high-volume data ingestion platform for the **Government of Himachal Pradesh**, instrumented end-to-end with **OpenTelemetry**.
- Mentored contributions to **Stencil🔗**, an opinionated **NestJS**-based backend framework I created, shipping **Prisma** ORM scaffolding and **Prometheus + Grafana** monitoring out of the box.
- Led a team of **3 interns** from specification to production release of **OIDC-Lite**, a lightweight OpenID Connect service.

Technical Skills

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|-------------------------|--------------------|-----------------------------|
| • TypeScript/JavaScript | • PostgreSQL | • Firecracker microVMs |
| • Go | • Redis | • OpenTelemetry |
| • NestJS & Fastify | • RabbitMQ & Kafka | • LLM/agent tooling & evals |
| • ReactJS | • Docker & Nomad | • BeckN |

Achievements

Gold Medalist, B.Tech. Computer Engineering — ranked **first in the graduating class**, NIT Kurukshetra (2024).

Winner, Smart India Hackathon internal round at **NIT Kurukshetra** (2022); advanced to the national finals.

99.5 percentile in **JEE Main 2020**, among ~1M candidates nationally.