

Tushar Singh

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SUMMARY

- Engineer working at the intersection of backend infrastructure and AI SRE; currently building **VibeMonitor**, an AI SRE platform for production observability.
- Design backend services, manage database migrations, and build high-throughput ingestion pipelines for telemetry and observability data, keeping systems green and predictable in production.
- Build agentic AI workflows that reason over live system behavior, trace issues, and validate outputs to enable reliable monitoring, root cause analysis, and faster MTTR across distributed systems.

EXPERIENCE

- **VibeMonitor [Website]** Sep 2025 – Present · Bengaluru, India
Software Engineer (Backend & AI) Feb 2026 – Present
 - Building an RCA agent (LangChain, LangGraph, ReAct orchestration), cutting mean time to root cause analysis by **40%**.
 - Refactored Alembic migrations to stabilize production, saving **~1 hr of debugging per deploy**; streamed agent output over SQS + Redis Pub/Sub via SSE.
 - Built a Health Monitor tracking **10+ microservices**, surfacing logging, metric, and trace gaps to speed incident detection.
- ↔ *Backend & AI Engineer (Internship)* Sep 2025 – Feb 2026
 - Designed log ingestion pipelines (OpenTelemetry/gRPC → ClickHouse, Grafana) sustaining **10K+ events/sec**.
 - Built AI agents automating RCA workflows (LangChain, LangGraph, ReAct), cutting manual triage by **50%**.
 - Developed a Tree-sitter code parser for AST-level analysis, improving RAG retrieval and cutting LLM token usage by **60%**.
- **RoastNest [Website]** Apr 2025 – Jul 2025
Software Engineer Intern Remote, Intern
 - Built backend REST APIs, integrating **3+ third-party services**.
 - Created GitHub Apps for feedback and auth workflows with **zero-downtime** database reliability.
 - Shipped Next.js frontend work, cutting page load time by **20%**.
- **Sergul Computer Institute [Website]** Sep 2024 – Feb 2025
Fullstack Freelance Developer Remote, Freelance
 - Built admin-panel backend managing student data for **2000+ active users**.
 - Deployed frontend on Vercel (DNS), ran the app server on GoDaddy cPanel, and automated SSL renewals with Certbot.

SKILLS

- **Languages:** Python, JavaScript, TypeScript, C++
- **Web Technologies:** Django, FastAPI, Selenium (Automation), Node.js, React.js, Next.js, Express.js, TailwindCSS
- **Database Systems:** PostgreSQL, MySQL, MongoDB, SQLite, ClickHouse
- **Cloud & DevOps:** AWS, Docker, Git, GitHub, Linux, GitHub Actions, CI/CD Pipelines
- **Other Tools:** Postman, Prisma, Knex, LangChain, pytest, BeautifulSoup, OpenTelemetry, Grafana, Supabase

EDUCATION

- **KIET Group of Institutions - AKTU** 2022 – 2026
B Tech, Computer Science Delhi NCR

LEADERSHIP, ACHIEVEMENTS, AND VOLUNTEERING

- Led the team and **won the first Hackathon** organized by FOSSCU-K
- Volunteered in Backend Development and served as Outreach Lead at FOSSCU, an Open-Source Community
- Solved 250+ DSA problems using object-oriented programming languages. [Competitive Programming Portfolio](#)

View all my projects [here](#) ↗