





# Gaurav Singh

Software Engineer

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## PROFESSIONAL EXPERIENCE

### COGNITIVE VIEW | SOFTWARE ENGINEER

July 2024 – Current | Bhubaneswar, India

- Secured the platform with mTLS, **JWT-based authentication**, and hardened session management practices.
- Architected and optimized **FastAPI**-based microservices for asynchronous, low-latency processing.
- Engineered the core backend hub for seamless, high-performance integration between the frontend and LLM-based microservices.
- Built a graph-based workflow engine using **Langraphs**, automating complex decision-making and operational flows.
- Implemented **Kafka** to enable resilient, real-time communication across distributed microservices.
- Deployed backend services to **AWS EKS** with automated CI/CD pipelines; possess foundational experience in **Terraform** for infrastructure as code.
- Managed hybrid cloud infrastructure across **AWS** and **Azure**, ensuring consistent deployments, automation, and cross-platform scalability.
- Designed and tuned **MongoDB** schemas for scalable performance, including vector indexing to power semantic search in LLM-integrated features.
- Led observability implementation using **Prometheus**, **Grafana**, **Sentry**, and **DataDog** to enable monitoring and alerting.

### BOOSSTI S.A. | FRONTEND DEVELOPER INTERN

Dec 2023 – March 2024 | Remote

- Developed user interfaces with TypeScript, ReactJS, and NextJS, boosting user engagement.
- Enhanced efficiency in software delivery and deployment through effective collaboration on AWS-based CI/CD.
- Contributed to increased user engagement through interface development.

## PROJECTS

### REAL-TIME COLLABORATIVE DESIGN TOOL | NEXT.JS | FASTAPI | WEBSOCKETS

- Developed a real-time collaborative design platform similar to Figma, enabling multiple users to edit a shared canvas simultaneously.
- Utilized **fabric.js** for rendering and manipulating canvas elements such as rectangles, text, groups, and images with full interactivity.
- Implemented real-time synchronization using **WebSockets** between frontend and backend to reflect changes instantly across all connected clients.

### AGENTIC AI WORKFLOW ORCHESTRATOR | PYTHON | LANGCHAIN | KAFKA

- Developed a **LLM-powered agent** with LangChain to monitor GitHub CI/CD pipelines, analyze logs, and suggest fixes in real time.
- Leveraged **Kafka** for event-driven triggers (e.g., push events, pipeline failures) and **GitHub API** to fetch pipeline status, logs, and re-trigger workflows.
- Used **AWS Secrets Manager** for secure token management and implemented **auto-fix PRs** with code suggestions for failed builds.

## SKILLS

### PROGRAMMING

Proficient:

• Python • JavaScript • Typescript • SQL • MongoDB

Experienced:

• Latex • C++

Familiar:

Java •

### LIBRARIES/Frameworks

• FastAPI • Langchain • Flask • React.js • Next.js

### TOOLS/PLATFORMS

• Git • Kubernetes • Terraform • AWS • Azure • Wordpress • Docker • Kafka

## EDUCATION

### IIT, BHUBANESWAR

DUAL DEGREE

June 2019 - April 2025

CGPA: 8.43 / 10

## ACHIEVEMENTS

- Knight at LeetCode (Max Rating of 2008) and solved over 1350 problems on LeetCode. **LEETCODE**.
- 4 Star at CodeChef (Max Rating of 1841) **CODECHEF**.
- International Collegiate Programming Contest (ICPC) regionalist in 2023.
- Advanced to the third round of TVS Credit's hackathon, achieving a top 300 position out of 51,414 competing teams.
- Secured a global rank 24 and college rank 3 in CodeSprint organized by Neuromancers, IIT Bhubaneswar.