



Mrinal Satyarthi

Roll No.: 2401CE60

B.Tech

Civil and Environmental Engineering

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GitHub

LinkedIn

EDUCATION

B.Tech in Civil and Environmental Engineering

Indian Institute of Technology, Patna

2024-Present

CGPA: 6.98

EXPERIENCE

Judix Technologies Pvt. Ltd

Software Engineer (Intern)

May 2025 - July 2025

Remote (judix.in)

- Developed and enhanced the Judix landing page, created a responsive interface with clean and user-friendly design.
- Assisted in debugging the RAG system and supported frontend-backend integration through API communication.
- **Tech Stack:** Next.js, Redux.js, Python

Judix Technologies Pvt. Ltd.

Software Engineer (Full Time)

Aug 2025 - Present

Remote (judix.in)

- Developed JUDIX's core AI to instantly answer legal queries using cited Supreme Court cases
- Built the Node.js API that handles user authentication, subscriptions, and live AI search queries.
- Integrated the React frontend with backend APIs to stream live AI responses and display legal data.
- **Tech Stack:** Next.js, Node.js, Redux.js, PostgreSQL, MongoDB, Google Cloud Run, Docker

PERSONAL PROJECTS

Large-Scale Graph Routing Engine

A fast road routing system built on real map data with optimized memory usage.

Feb 2026

GitHub

- Built a C++ routing engine using Dijkstra's algorithm to navigate central India's road network.
- Used memory mapped files in C++ to load massive routing graph data under one gigabyte.
- **Tech Stack:** C++(DSA), Node.js, Next.js, Redux.js, TypeScript

CI/CD Automation for Java Microservices

Automated the entire build, test, and deployment process for a Java microservice application on AWS

July 2025

LinkedIn

- Built a Groovy-scripted Jenkins pipeline that auto-builds, runs Maven tests, and deploys to AWS ECS.
- Containerized each microservice with Docker and enforced SonarQube quality gates before every deployment.
- **Tech Stack:** AWS (ECS, ECR), Jenkins, Docker, Groovy, Maven, SonarQube, Git

Kubernetes Microservice Deployment on AWS

Deployed a scalable multi-service application on AWS that handles traffic spikes without downtime.

Aug 2025

GitHub

- Deployed a multi-service app on AWS EKS by authoring all Kubernetes manifests and config files.
- Provisioned a multi-node cluster with AWS Auto Scaling to handle traffic spikes with zero downtime.
- **Tech Stack:** AWS (EKS, ECR), Docker, Kubernetes, Git

RapidCrisis: AI-Powered Emergency Response

A real-time emergency alert system that monitors sensor data and sends automated notifications during crises.

April 2026

GitHub

- Built a real-time safety dashboard that displays live sensor data from physical devices on ground.
- Designed an AI alert pipeline that sends automated SMS notifications to responders during emergencies.
- **Tech Stack:** Next.js, Node.js, TypeScript, MongoDB, Redis, Docker, GitHub

TECHNICAL SKILLS

Languages: C++, JavaScript, TypeScript, Python

Frontend: React.js, Next.js, Redux.js, HTML, CSS

Backend: Node.js, Express.js, FastAPI, RESTful APIs

Databases: MongoDB, PostgreSQL, Redis

DevOps & Cloud: Docker, Kubernetes, AWS (EC2, ECR, EKS, S3), Ansible

CI/CD & Tools: Jenkins, Terraform, GitHub Actions, Netlify, Vercel, Git & GitHub

Operating Systems: Linux (Ubuntu), Windows

ACHIEVEMENTS

2nd Runner Up UPES CSA 4.0 Hackathon – National-level problem-solving competition

2024

9th Rank AI Agent Hackathon – Implemented full-stack frontend and backend services

2025