

SANDEEP GUPTA

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Education

Indian Institute of Information Technology (IIIT), Ranchi

2022 - 2026

B.Tech in Computer Science & Engineering

8.00/10 CGPA

Aspire Leaders Program (Aspire Institute & Harvard Collaboration)

Aug 2024 – Nov 2024

Leadership Fellow

Distance

Projects

QuickAI: AI-Powered SaaS Platform

[Source Code](#) — [Live Demo](#)

- **Tech Stack:** *React.js, Node.js, Express.js, PostgreSQL (Neon), Clerk, OpenAI, Gemini, Cloudinary*
- Built a scalable **AI SaaS platform** enabling content generation, image processing, and resume optimization using **OpenAI** and **Gemini** APIs.
- Implemented **secure authentication and subscription-based access control** using **Clerk**, ensuring reliable user management and plan enforcement.
- Designed and developed **RESTful APIs** focused on security, scalability, and seamless frontend-backend integration aligned with modern SaaS standards.
- Optimized media handling with **Multer** and **Cloudinary** for efficient uploads, processing, and CDN-based delivery.

Airline Booking System: Microservices API

[Source Code](#)

- **Tech Stack:** *Node.js, Express.js, MySQL, Sequelize, RabbitMQ, JWT, REST APIs*
- Developed a **microservices-based airline reservation system** with modular and scalable backend architecture.
- Implemented **JWT authentication** and **RabbitMQ** for secure, asynchronous inter-service communication.
- Designed **transactional seat booking workflows** using isolation levels and database locks to prevent concurrency issues.
- Automated booking confirmations and alerts using **cron jobs** and message queues, improving system reliability and user experience.

Router Endpoints Detector: API Route Analysis CLI

[Source Code](#) — [NPM Package](#)

- **Tech Stack:** *Node.js, JavaScript, CLI, AST, Acorn, Express.js*
- Developed an open-source **CLI tool** to automatically detect and document API routes in Express applications.
- Implemented **framework-agnostic static analysis** using **AST parsing** with Acorn and Acorn-walk.
- Released a **zero-config, plug-and-play CLI** with customizable outputs, reducing setup time by **50%** and achieving **180+ npm downloads**.

Technical Skills

Languages: Python, C++, JavaScript, SQL

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

Frontend: React.js, HTML5, CSS3, Tailwind CSS

Databases: MySQL, PostgreSQL, MongoDB

DevOps & Tools: Git, GitHub, Docker, AWS, CI/CD, Postman

Concepts: OOPs, DBMS, DSA, Agile Methodology

Algorithmic Competitions/Achievements

- Solved **500+** DSA problems from the platforms [LeetCode](#), [AlgoZenith](#) and [GFG](#)
- Contributed **10+ Pull Requests** during **Hacktoberfest 2024** and participated in **GSSoC 2024**.
- Selected for the prestigious **Harvard Aspire Leaders Fellowship 2024**, a globally competitive leadership program conducted in collaboration with Harvard.
- Served as **Social Media & Marketing Coordinator** at **E-Cell, IIIT Ranchi**, leading outreach and digital campaigns.