# Jay Aggarwal

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Full-stack developer and Computer Science student specializing in scalable web apps and cloud-native solutions (MERN, Kafka, GCP)

#### Education

### The LNM Institute of Information Technology

Aug 2022 - Apr 2026

Bachelor of Technology in Computer Science and Engineering

Jaipur, India

## **Professional Experience**

## Full Stack Developer (Freelance)

Apr 2025 – June 2025

TRISX Technology

Remote

- Engineered a scalable exam portal for 1,000+ concurrent users with real-time dashboards, boosting operational efficiency by 30%.
- Built and optimized 25+ RESTful APIs (Node.js/Express) with MongoDB, improving query response times by 40%.
- Secured application with JWT authentication and Role-Based Access Control (RBAC), cutting security vulnerabilities by 25%.
- Practiced Agile methodologies and Git workflows in a 4-person team, enhancing deployment frequency and integration.

## **Projects**

#### Kayak Travel Reservation System

Team Size: 2 | May 2025 - Aug 2025

React.js, Node.js, Kafka, Redis, MySQL, MongoDB, GCP, AWS

- Architected a high-availability (99% uptime) travel platform; cut search latency by 30% using Redis caching and a Kafka-based event-driven architecture.
- Authored 15+ reusable React components with TailwindCSS, accelerating frontend development speed by 20%.
- Integrated payment gateways, email notifications, and user dashboards for a seamless booking and management experience.

#### AI-Powered Plagiarism Checker

Jan 2024 – Apr 2024

React.js, Node.js, Express.js, Google Cloud Storage, OpenAI API

- Developed a plagiarism detector with 90% accuracy using OpenAI embeddings, cosine similarity, and OCR for text extraction.
- Implemented a side-by-side comparison UI with highlighted matches, reducing file review time to under 5 seconds.

## Leadership and Activities

Technical Lead

Sep 2024 - Feb 2025

 $E\text{-}Summit,\ LNMIIT$ 

 $Jaipur,\ India$ 

• Spearheaded a 10-member team to automate event processes for 1,000+ attendees, cutting errors by 15%; mentored 5+ junior developers in full-stack practices, improving team skill and project quality.

#### Skills

Languages: JavaScript, TypeScript, C++, Java, SQL

Frontend: React.js, HTML5, CSS3, TailwindCSS, Bootstrap, Material UI

Backend: Node.js, Express.js, RESTful APIs, MongoDB, MySQL, Redis, Kafka, Jest, Socket.io

Tools & DevOps: Docker, Git, CI/CD, Jira, Firebase, Google Cloud Platform (GCP), WebRTC