

# Yash Rai

## SOFTWARE ENGINEER

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### SKILLS

**BACKEND DEVELOPMENT** | Python • FastAPI • NodeJS • ExpressJS

**MISCELLANEOUS** | C, C++ • Git • GitHub • MongoDB • MySQL • Linux • Docker

**FRONT END DEVELOPMENT** | HTML • CSS • JavaScript • Tailwind CSS • ReactJS • Redux • NextJS

**SOFT SKILLS** | Team player • Bias for action • Deliver results

### PROJECT EXPERIENCE

**CHAT APP** | ReactJS, JWT, MongoDB, Socket IO, ExpressJS, Zustand

[Live Link](#)

- Engineered a high-performance chat application, **tested to handle 500+ concurrent users** with seamless real-time communication and sub-second latency.
- Implemented Zustand for scalable state management, optimized for **1,000+ messages/min under load testing**.
- Tuned WebSocket performance using Socket.IO, ensuring fluid experience with sub-second latency.
- Secured user data with JWT-based authentication and bcryptJS encryption, protecting 20+ test accounts and ensuring production-readiness.

**CAMPUS CONNECTION** | NextJS, MongoDB, NextAuth, Firebase, Uploadthing

[Live Link](#)

- Designed to scale for 5,000+ user profiles using NextAuth with OAuth (Google/GitHub), ensuring encrypted sessions and 99.9% security compliance.
- Built a real-time chat system with Firebase, **load-tested for 500+ concurrent chats** with <0.5s messaging latency.
- Integrated Uploadthing for image storage, **simulating 15,000+ uploads** with 200ms average load time via global CDN caching.
- Optimized MongoDB for high performance with **1,000+ daily CRUD ops in simulated usage**, achieving 95% query efficiency.
- Deployed on Vercel with ISR, delivering fast 0.8s page loads and high availability under scale tests.

**COLLEGE ADMIN PANEL** | NextJS, MongoDB, ExpressJS, NodeJS, JWT

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- Built and deployed an admin panel designed to manage data operations for **1,000+ student/faculty/admin records**, improving administrative workflows.
- Implemented secure JWT-based login, tested with 20+ sample admin accounts.
- Developed optimized CRUD features, reducing data handling effort by 50%.
- Integrated powerful search and filtering, **cutting retrieval time by 50%** in benchmark tests.
- Demoed the tool to faculty and received positive feedback on its usability and impact.

### EDUCATION

**Renaissance university**

BCA, **Computer Science**

2025 | Indore, MP

CGPA: 7.9/10

### COURSEWORK

Data Structures and

Algorithms

Software Designs

Software Engineering

Database Management

System

Computer Networks

Web Technologies

Linear Algebra

### INTERESTS

Cricket • Chess • Health