

Yash Kumar Singh

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SUMMARY

Full Stack Developer with hands-on experience building production-ready web applications using MERN stack and Next.js. Proficient in developing RESTful APIs, implementing real-time communication with WebSockets, and integrating AI-powered functionalities. Strong foundation in Data Structures, Algorithms, and modern web technologies with focus on performance optimization and scalable architecture.

EDUCATION

- **National Institute Of Technology Durgapur**

2024–Present

CGPA: 7.42

B.Tech in Chemical Engineering

Relevant Coursework: Data Structures & Algorithms, Computer Programming (C)

TECHNICAL SKILLS

- **Languages:** JavaScript (ES6+), TypeScript, C++, C
- **Frontend:** React.js, Next.js, Tailwind CSS, Redux, Framer Motion, Chart.js
- **Backend:** Node.js, Express.js, RESTful APIs, WebSockets, Socket.io
- **Database & Auth:** MongoDB, PostgreSQL, MySQL, Redis, Clerk, JWT, NextAuth.js, bcrypt
- **Developer Tools:** Git, GitHub, Postman, Vercel, Render, Figma
- **Core Competencies:** Data Structures & Algorithms, OOP, DBMS, MVC Architecture

EXPERIENCE

- **Full Stack Developer Intern**, Techxica Technology Pvt. Ltd.

Nov 2025 – Present

- Developed e-commerce SaaS features including product management, order workflows, and payment gateway integration.
- Rebuilt company website using React and Tailwind CSS with responsive components and RESTful API integration.
- Collaborated via Git workflows and GitHub PR reviews maintaining code quality and delivering production-ready solutions.

PROJECTS

- **BudgetTracker AI**

[Live Demo](#) | [GitHub Repo](#)

Tech Stack: Next.js 14 (TypeScript), TailwindCSS, MongoDB, Clerk Auth, Chart.js, OpenRouter API

- Built expense tracker with OpenRouter LLM API for AI categorization across 6+ categories, reducing manual entry by ~ 90%.
- Implemented Chart.js analytics dashboard with bar/pie charts for spending trends supporting dark/light mode.
- Integrated MongoDB connection pooling and AI-generated personalized spending insights with budget recommendations.
- Developed Clerk authentication with protected routes and type-safe TypeScript API endpoints for enhanced security.

- **Expense Splitter App**

[Live Demo](#) | [GitHub Repo](#)

Tech Stack: React, TailwindCSS, Node.js, Express.js, MongoDB, Socket.io

- Developed real-time expense platform using Socket.io WebSockets with < 100ms latency, supporting 20+ concurrent groups.
- Built Express.js RESTful API with flexible splitting algorithms and automated calculations, reducing manual work by ~ 80%.
- Implemented React.lazy() code-splitting for route-based lazy loading, reducing initial bundle size by ~ 30%.
- Designed responsive TailwindCSS UI with MongoDB schema for persistent group storage and expense tracking.

- **Secure Notes App**

[GitHub Repo](#)

Tech Stack: HTML, CSS, JavaScript, Node.js, Express.js, MongoDB

- Built notes application with JWT authentication and bcrypt hashing for secure sessions and protected API endpoints.
- Developed Express.js RESTful API with CRUD operations, input validation, error handling middleware, and MongoDB queries.
- Designed responsive vanilla JavaScript UI without external dependencies for seamless cross-device note management.

- **LRU Cache Implementation**

[GitHub Repo](#)

Tech Stack: C++, STL, Data Structures

- Implemented LRU Cache with **O(1)** get/put operations using `unordered_map` and a doubly linked list.
- Designed an automatic eviction policy enabling constant-time updates and memory-efficient key management.

ACHIEVEMENTS & LEADERSHIP

- Solved 180+ problems on [LeetCode](#), demonstrating strong proficiency in Data Structures and Algorithms.
- Maintained 500+ [GitHub Contributions](#) across 6+ repositories, showcasing consistent development and collaboration.
- Member, **SAIC (Student Alumni Interaction Cell)** NIT Durgapur – Coordinated logistics for Alumination 2025, managing registration for 100+ attendees.