

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
B.Tech in Chemical Engineering CGPA: 7.42
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.