Yash Kumar Singh

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GitHub: github.com/coder40425 | Portfolio: yash-dev-portfolio-website.vercel.app
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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, 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 $\sim 90\%$.
  - 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 $\sim 80\%$.
  - Implemented React.lazy() code-splitting for route-based lazy loading, reducing initial bundle size by $\sim 30\%$.
  - Designed responsive TailwindCSS UI with MongoDB schema for persistent group storage and expense tracking.

- **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.

- **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.

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.