



Kumar Vaibhav

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Education

- **BTech. Computer Science and Engineering** *VIT Bhopal University (October 2022 – Present)*
 - Currently Pursuing (Final Year)
 - **CGPA:** 8.50
- **Delhi Public School Newtown, Kolkata** *Class 10: 91.6% (2020), Class 12: 82.4% (2022)*

Skills

Programming Languages: Java, JavaScript, Python, HTML, CSS

Technologies & Frameworks: React, Node.js, Express, SQL, MongoDB, TailwindCSS, WebSockets

Tools: Git, GitHub, Postman, Docker, Agile, Testing, Redux Toolkit, Vercel, Render, TanStack Query, REST APIs

Other Concepts: Data Structures, Algorithms, Object-Oriented Programming, Software Development Lifecycle

Experience

- **Frontend Developer Intern** *Spark, US-based Energy Tech Startup (Remote, May 2025 – Present)*
 - Built interactive frontend modules using **React**, **D3.js**, **ShadCN**, **Radix UI**, with client-side routing and state handling via **React Query**, enabling seamless delivery of 10+ real-time energy metrics.
 - Collaborated with ML team to integrate analytics visualizing real-time energy metrics across 5+ system zones.
 - Led frontend-backend integration and supported production deployment via AWS S3 + CloudFront.

Technical Projects

- **Scribbly (Full Stack Project)** [Link](#)
 - Assembled a real-time collaborative whiteboard with **chat** and **cursor** sharing for up to 50 users (<100ms latency), enabling freehand drawing with smooth path tracking, undo support, and event synchronization via **Socket.IO**.
 - Integrated **Keycloak-based authentication** with **Docker** orchestration to ensure secure, scalable access across private and public collaboration rooms, supporting 10+ concurrent active sessions.
 - Containerized frontend/backend using Docker, improving scalability and reducing setup time by 40%.
 - **Tech Used:** React, Node.js, Express, TypeScript, Bootstrap, Socket.IO, HTML Canvas API, Keycloak, Docker
- **Expenzo (Full Stack Project)** [Link](#)
 - Developed a comprehensive financial management web app with 10+ visualizations to track incomes and expenses, visualize spending, and generate actionable insights with **multi-factor authentication**.
 - Created a custom PDF/Excel parser using **Node.js streams** to process financial documents with 95% data extraction accuracy, automatically extracting and categorizing transaction details for user convenience.
 - Deployed CI/CD pipelines via **GitHub Actions & Vercel**, cutting release cycle time to under 20 minutes
 - **Tech Used:** Next.js, Tailwind CSS, Neon Postgres, Drizzle ORM, Clerk Auth, ShadCN

Achievements

- Selected among the top 10 teams out of 200+ entries at the **Prod-E-G Hackathon 2023**, organized by DSEU University, Guna, for developing the **NurtureWise Agro Project** as an innovative agricultural tech solution. Certificate
- Engineered a **CCTV Monitoring System** using an advanced anomaly detection model to detect road accidents and reduce false positives by 40%, earning finalist position at **Rajasthan Police Hackathon 2023**. LinkedIn

Certifications

- **MERN Full Stack Certification** (Ethnus, 2025)
- **The Bits and Bytes of Computer Networking** (Coursera, 2023)
- **Frontend Developer (React)** (Hackerrank, 2025)