

RITTIK CHAKRABORTY

Kolkata, West Bengal

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PROFESSIONAL SUMMARY

Full-Stack Developer with experience building real-time and AI-powered web applications using React, Node.js, MongoDB, WebSockets, and cloud-based architectures. Skilled in developing scalable frontend experiences, secure backend systems, asynchronous workflows, and production-ready applications with a strong focus on performance, reliability, and maintainability.

TECHNICAL SKILLS

Frontend: HTML5, CSS3, JavaScript (ES6+), React.js, Zustand, Tailwind CSS, Bootstrap, Material UI

Backend: Node.js, Express.js, Next.js, Socket.IO, WebRTC, REST APIs, JWT Authentication, BullMQ

Database: MongoDB, Mongoose, MySQL

AI & Realtime: Groq, Deepgram, Prompt Engineering, LLM Integration, WebSockets

Cloud & Tools: Git, GitHub, Vercel, Render, AWS S3, MongoDB Atlas, Cloudinary, Aiven Cloud, Brevo SMTP

PROJECTS

Zimpeer — Real-Time Video Conferencing Platform | *React, Node.js, Socket.io, WebRTC, MongoDB*

- Launched a browser-based video conferencing platform supporting 4+ concurrent participants per room using WebRTC, Socket.io, React, and Node.js.
- Implemented 12+ real-time system flows including screen sharing, in-meeting chat, file sharing, JWT authentication, duplicate-session protection, and host moderation controls.
- Constructed a scalable room-based communication system with 12+ socket event handlers, 18 reusable UI components, Zustand state management, achieving sub-second peer connection setup and deployed full-stack application across Vercel, Render, and MongoDB Atlas with 99.9% uptime monitored via UptimeRobot.
[Live Demo](#) | [GitHub](#)

AI Video Interview Platform | *Deepgram, Groq, Socket.IO, BullMQ, MongoDB, AWS S3*

- Developed a full-stack AI interview platform using React, Node.js, Groq, and Deepgram, enabling automated interviews with live voice interaction, transcript capture, and AI-generated candidate feedback.
- Designed a resilient media workflow with chunked video streaming, asynchronous processing, retry mechanisms, and cloud object storage for recruiter playback and review.
- Built recruiter-facing dashboards with interview templates, session management, real-time proctoring with 9 flags, transcript review, and AI-assisted evaluation pipelines.
[Live Demo](#) | [GitHub](#)

Assess IDE — Browser-Based Sandboxed IDE | *WebContainers, Monaco Editor, xterm.js*

- Architected a browser-based sandbox IDE with 13 React components, 3 Zustand stores, Monaco Editor, xterm.js terminal integration, enabling code editing and runtime execution directly in the browser.
- Implemented file/folder CRUD operations, multi-file editor tabs, terminal tabs, live preview, panel resizing, and project persistence, with project state synchronized across WebContainer filesystem, Zustand, and MongoDB.
- Engineered a lightweight backend with 4 REST API endpoints and MongoDB persistence, supporting automatic project save/load, runtime restoration, and browser-native development workflows without local setup.
[Live Demo](#) | [GitHub](#)

Real-Time Expert Booking System | *React, Node.js, Socket.io, React Query*

- Created an expert booking platform with live slot synchronization, booking management, and admin operations using React, Node.js, Express, MongoDB, and Socket.io.
- Optimized race-condition-safe booking creation, duplicate booking prevention, live slot updates, and booking status tracking across 4 stages using Socket.io events and React Query cache invalidation with real-time slot synchronization under 1 second and maintained 99.9% production uptime through automated monitoring.
- Structured modular frontend/backend architecture with shared frontend utilities, centralized API handling, MongoDB indexing, and client/server validation.
[Live Demo](#) | [GitHub](#)

EDUCATION

Aliah University

Bachelor of Technology (B.Tech) in Electrical Engineering — CGPA: 7.76

2020 – 2023

Kolkata, India

North Calcutta Polytechnic / WBSCT&VE&SD

Diploma in Electrical Engineering — CGPA: 7.9

2015 – 2018

Kolkata, India

CERTIFICATIONS

Full-Stack Web Development — Bluelime Learning Solutions (Udemy)

Python Programming — Kaggle