

Sutanu Jana

Software Developer

📍 Bardhaman, West Bengal

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Education

Indian Institute of Information Technology Ranchi

Aug. 2023 – Expected May 2027

B. Tech. in Computer Science and Engineering (Data Science & AI)

CGPA: 9.50

East West Model School

Apr. 2010 – May 2023

10th and 12th CISCE Board

95%

Projects

CodeArena – Coding Duel Platform | *Next.js, Redux, Node.js, Express.js, MongoDB, Socket.IO* | 🐙 **June 2025**

- Built a full-stack real-time coding platform enabling users to participate in coding duels with live updates using **WebSockets** and practice daily questions.
- Established Codeforces account linkage via the Codeforces API and deployed secure authentication and session management using **Clerk**.
- Architected a responsive and interactive frontend using **Next.js** and **Redux** for efficient state management and client-side routing.
- Executed efficient client-side caching to reduce API calls and enhance application response speed by **50%**.
- Configured Clerk Webhooks to persist user data in **MongoDB**, and created RESTful APIs using **Express.js** to handle user profiles, problem sets, submissions, and leaderboard rankings.
- Implemented rating-based matchmaking for duels, and added support for custom rooms with user-defined question tags and difficulty filters.

VibeChat – Real-Time Chat Application | *Node.js, Express.js, MongoDB, Socket.IO, JWT, Cloudinary* | 🐙 **May 2025**

- Engineered a robust backend architecture for a real-time chat application using **Node.js**, **Express.js**, and **MongoDB**, supporting 1-on-1 messaging, complex group chats, and an admin analytics dashboard.
- Architected event-driven communication using **Socket.IO** to handle concurrent bidirectional data flows, enabling instant message delivery, live typing indicators, and online presence tracking.
- Implemented secure cross-origin authentication utilizing HTTP-only **JWT** cookies and bcrypt hashing, alongside centralized input validation using **express-validator** for enhanced API security.
- Designed optimized **RESTful APIs** with global error handling, and integrated **Cloudinary** via Multer for seamless and scalable multipart media storage.

Skills

Programming Languages : Python, C++, C, JavaScript, TypeScript, Java

Frontend : HTML, CSS, React.js, Next.js, Tailwind CSS, Redux

Backend : Node.js, Express.js, FastAPI, WebSockets, REST, Webhooks, JWT, MVC, Service/Repository Pattern

Databases : MongoDB, Pinecone, Chroma, FAISS

Cloud & DevOps : AWS (EC2), Docker, GitHub Actions, Vercel, Git, GitHub

Tools & Testing : Jest, Unit Testing, Postman

Achievements

- Achieved **Rank 33** at **ICPC Asia West Regional 2025**, competing among top collegiate programming teams.
- Qualified for college-level **Smart India Hackathon (SIH) 2024** and secured a spot among the **Top 100 teams** in India in the **HackRx Bajaj Hackathon 2025**.
- Achieved **Expert** (1700+ rating) on Codeforces, **Guardian** (2150+ rating) on LeetCode with **200+ day streak**, and **4-star** (1950+ rating) on CodeChef.
- Solved **2300+ Coding problems** across LeetCode, Codeforces, CodeChef, and other coding platforms.
- Qualified for **Meta Hacker Cup 2025 Round 3** with a global rank of 186.
- **Coding Profiles:** [Codeforces](#) | [LeetCode](#) | [CodeChef](#)