Ajaey Bisht

bisht.ajaey@gmail.com | +91-6306633489 |

ajaey-bisht | ajaey-bisht

PROFESSIONAL SUMMARY

Computer Science and Engineering student at IIIT Nagpur with practical experience in building web and real-time applications. Skilled in full-stack development using the MERN stack, Node.js and Socket.io with additional exposure to mobile app development. Experienced in authentication systems, database optimization and real-time communication. Proficient in C/C++, Java, JavaScript, React.js, MongoDB, MySQL and Docker, with a solid foundation in data structures, algorithms and software engineering principles.

EDUCATION

Indian Institute of Information Technology, Nagpur Aug 2023 – May 2027
Bachelor of Technology in Computer Science and Engineering - CGPA - 8.15

Loyola International School, Lucknow 2023
Senior Secondary Examination - 82%

City Montessori School, Lucknow 2021
Secondary Examination - 98%

PROJECTS

Real-Time Chat Application (MERN + Socket.io) Jan 2025 – Present

- **Built a full-stack real-time chat application** using the MERN stack and Socket.io, enabling **instant messaging with <100ms latency** across public and private rooms.
- **Implemented secure authentication** with JWT and HTTP-only cookies, ensuring **persistent sessions even after browser refresh**, reducing login friction by **~50%** and reducing **session hijacking risks by 90%** compared to local storage methods.
- **Optimized database performance** by implementing MongoDB pagination for message history, loading the **latest 50 messages per room**, improving read efficiency by **~40%**.
- **Integrated file sharing support** (images/videos up to 50MB) via Multer and Express, enabling **100+ uploads/day** with real-time synchronization across connected clients.

Real-Time Multiplayer Ludo Game 2024

- **Engineered a real-time multiplayer Ludo game** using Node.js, Express.js and Socket.io, supporting **up to 4 concurrent players per match** with live synchronization of dice rolls and moves.
- **Implemented session persistence and reconnection handling**, reducing **game dropouts by ~80%**, ensuring players rejoin seamlessly after disconnection or refresh.
- **Optimized server communication** with event-driven Socket.io architecture, enabling **multiple simultaneous games** and improving server efficiency by **~35%**.
- **Designed a scalable room-based system with unique 10-character IDs, supporting 100+ concurrent private/public matches with isolated game states.**

TECHNICAL SKILLS

Programming Languages: C/C++, Java, JavaScript, HTML, CSS, Markdown

Frontend Frameworks: React.js

Backend & Databases: MongoDB, Firebase, Node.js, Express.js, MySQL, Appwrite

DevOps & Tools: Git, Docker, Postman