

Tirtharaj Barma

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Skills

Languages	JavaScript(ES6+), TypeScript, C++, Java, SQL
Web Frameworks	React, Redux, Node.js, Express, Tailwind
Database & tools	Mongodb, MySQL, Mongoose
Development tools	Git, GitHub, Docker, AWS
CourseWork	Object-Oriented Programming, Networking, DBMS, Data Structure and Algorithm

Projects

Real-Time Chat Application — MERN stack	January 2025
- Developed a real-time chat application using WebSocket, ensuring seamless and lag-free communication to deliver instant messages and enhance user satisfaction by 70%. - Integrated JWT-based authentication for secure user logins, safeguarding data and improving the overall user experience. - Implemented features like typing indicators, online/offline status, and real-time updates to create a more engaging and interactive chat experience. - Optimized the application's performance for real-time responsiveness, ensuring smooth communication across diverse user scenarios.	
Crypto Tracker Website — React, Responsive Web Design	September 2024
- Built a responsive and visually stunning cryptocurrency tracker, providing live price updates and market data for mainstream cryptocurrencies, achieving 95% user satisfaction. - Implemented Google Charts to create interactive visualizations, providing users with a comprehensive overview of cryptocurrency price trends across various timeframes. - Enhanced user engagement by 65% by adding detailed cryptocurrency descriptions, historical data, and advanced trend analysis tools, significantly improving user retention. - Designed features that emphasize market trends and detailed analytics, empowering users to make informed decisions in real-time.	
Book-Store WebApp — MERN Stack, Firebase	June 2024
- Designed an intuitive Admin Dashboard with fluid CRUD functionality, enabling seamless addition, editing, and deletion of book records, achieving a 70% improvement in operational efficiency. - Created synchronous real-time data synchronization to reflect newly added books instantly on the front-end website, enhancing user trust and reducing delays by 80%. - Integrated Google Firebase Authentication for secure user login and robust session management, resulting in a 90% reduction in unauthorized access incidents.	

Experience

AWS Cloud Club LPU	November 2023 – Current
<i>Core Team Member (Web development)</i>	
- Leading initiatives promoting AWS Cloud awareness and skill development in students. - Successfully organized and executed two large-scale campus events (technical workshops and hands-on labs) resulting in 30% more students participating and engaging.	

Certificates

• Cloud Computing	NPTEL (2024)
• Server Side Scripting with Node.js	Coursera (2024)
• Data Structures and Algorithms Using C++	Udemy (2023)

Education

Lovely Professional University	September 2022 - July 2026
<i>B.Tech. in Computer Science and Engineering</i>	CGPA - 7.76
<i>Minors: Web Programming and Devops</i>	
Delhi Public School	April 2020 - May 2022
<i>Higher Secondary School</i>	Percentage - 84%
Holy Child School	September 2010 - July 2020
<i>Secondary School</i>	Percentage - 87%