

Mani Raj Chaturvedi

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EDUCATION

Maulana Azad National Institute of Technology, Bhopal
Bachelor of Technology in Electrical Engineering

2021 – 2025
CGPA: 8.70

EXPERIENCE

Software Development Intern

Feb 2024 – Mar 2024

PeerCT

Bhopal

- Engineered a role-based user authentication using Express and MongoDB, reducing login response time by 30%.
- Developed secure and scalable backend APIs with optimized middleware, improving performance by 35%.
- Implemented a global API error handler in React to gracefully manage expired user sessions, reducing the total number of logged frontend exceptions by 20%.
- Used Git/GitHub for version control, resolving merge conflicts in a collaborative Agile team.

PROJECTS

Real-Time Chat App | *React js, Express js, Mongo Db, Socket.io*

[Live](#) | [Code](#)

- Built a real-time chat web application leveraging the MERN stack (MongoDB, Express.js, React, Node.js).
- Enabled instant messaging and online status indicators using **Socket.io**, ensuring users receive immediate notifications and can see who is online for seamless interactions.
- Employed **JWT** tokens to secure user authentication and authorization, guaranteeing safe user login and data protection throughout the application.

Transect Ease | *React.Js, Express.Js, Node.Js, Mongo Db*

[Code](#)

- Developed a full-stack money transfer application using React (frontend), Node.js and Express (backend), and MongoDB (database), enabling seamless and secure financial transactions.
- Implemented **JWT** auth to ensure secure user signup and signin, preventing unauthorized access.
- Utilized **MongoDB transactions** to maintain data consistency and ensure atomicity in financial transactions, preventing issues like double spending or partial updates.

Multithreaded Proxy web Server | *C Language*

[Code](#)

- Built a multi-threaded server from scratch, using **pthread** library for simultaneous client handling.
- Ensured thread safety on the shared cache by using **mutex locks** for exclusive write access, while leveraging **semaphores** to manage and allow for multiple concurrent read operations.
- Implemented a **Least Recently Used (LRU)** cache using doubly linked list to store web responses, reducing network latency for cached requests.
- Developed a parser to process **HTTP GET** requests and correctly forward them to the target server.

SKILLS

General: Data structures and Algorithms, Object-oriented programming, DBMS, Machine Learning, Operating Systems

Languages: C, C++, Python, SQL, JavaScript, Typescript

Frameworks and Libraries: React.js, Node.js, Express.js, Tailwind, Recoil, Prisma (ORM), Authentication (JWT)

Tools and Databases: Amazon Web Services(AWS), Microsoft Excel, VS Code, Git, GitHub, PostgreSQL, MongoDB

Soft Skills: Problem Solving, Time Management, Leadership

ACHIEVEMENTS & EXTRACURRICULAR

- Solved 1300+ problems on LeetCode and GeeksforGeeks to sharpen algorithmic and DSA skills.
- Secured global rank 3164 in Leetcode biweekly 146 contest among 25000 participants.
- Participated in 35+ coding contests on various platforms like CodeChef, Codeforces, LeetCode.
- Secured top ranks in both 10th and 12th board exams in District and was awarded by Chief Minister.
- Coordinated the quizzing events the annual fest of MANIT, ensuring smooth execution and mass participation.
- Led and participated in national Nukkad Natak events, including conducting competitions and performing in plays.