

Harsh Mishra

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EDUCATION

National Institute of Technology, Jamshedpur

Bachelor of Technology – CGPA: 8.02

Jharkhand, India

Aug 2023 – Present

City Montessori School, Lucknow

Class 12th (ICSE) – 98%

Uttar Pradesh, India

Apr 2021 – Apr 2022

SKILLS

- **Languages:** C/C++, Java, Python, JavaScript, GoLang
- **Frameworks/Libraries:** React.js, Node.js, Express.js, TypeScript
- **Databases/Tools:** MongoDB, Git, GitHub, REST APIs, DBMS
- **CS Fundamentals:** DSA, OOPs, Operating Systems, DBMS, Computer Networks
- **Soft skills:** Strong communication, problem-solving, adaptability, teamwork, and critical thinking

PROJECTS

Task Manager | View Project | Source Code

- Developed a web application for streamlined task management, team collaboration, and deadline tracking, ensuring tasks are sorted according to their deadlines.
- Implemented a team collaboration feature using a user and friendship-based model in MongoDB to allow team-based task sharing.
- Designed and integrated JWT authentication within a MERN stack application, following security best practices including secure secret management, short token expiry, and defined scopes and permissions.
- **Tech Stack:** React.js, MongoDB, Express.js, Node.js, JWT

Algorithm Visualizer | View Project | Source Code

- Developed a dynamic web application to visualize and interact with complex algorithms including sorting, graph traversal, and path-finding.
- Designed and implemented a user-friendly interface for visualizing sorting algorithms like **Bubble Sort**, **Merge Sort**, **Selection Sort**, etc.
- Implemented an interactive visualization of **Dijkstra's algorithm** to demonstrate shortest path computation in weighted graphs.
- Visualized the **A* pathfinding algorithm**, demonstrating how heuristics optimize search paths.
- Used animations and dynamic node interactions to demonstrate graph traversal algorithms such as **Breadth-First Search (BFS)** and **Depth-First Search (DFS)**.
- **Tech Stack:** HTML, CSS, React.js, Node.js, MongoDB

MovieBook | Source Code

- Built a scalable movie ticket booking platform featuring user authentication, admin control, and booking management.
- Implemented JWT-based user authentication and role-based access control, allowing differentiated permissions for users and admins.
- Integrated Redux Toolkit, Axios, and Material UI to manage state efficiently and enhance UI/UX responsiveness.
- **Tech Stack:** MERN stack (MongoDB, Express.js, React.js, Node.js), Redux Toolkit, JWT, Material UI, Axios, Mongoose, ES6

POSITIONS OF RESPONSIBILITY

- General Secretary of **QuNITE**: The official **Quizzing club** of NIT Jamshedpur
- Member of **Machine Learning Team, Team InnoReva** (IoT club at NIT Jamshedpur)
- Member of **Creative Team, National Service Scheme** (NIT Jamshedpur chapter)

ACHIEVEMENTS

- Solved **500+** problems of DSA and competitive programming across various platforms like **Codeforces**, **Leetcode**, **Atcoder**, etc.
- Ranked **Pupil (1364)** on Codeforces — PAinO5

PROFILES

- Codeforces | Leetcode