ARITRA KUMAR

📍 Hooghly, West Bengal, India

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Education

Jadavpur University   Aug 2021 – May 2025
Bachelor of Engineering in Information Technology   *CGPA : 8.6*

Relevant Coursework

- Data Structures & Algorithims
- Design & Analysis of Algorithms
- Database Management System
- Object Oriented Programming
- Operating System
- Computer Networks

Projects

DriveShare - A Google Drive Utility | ***React.js, React-OAuth, Node.js, Express.js, MongoDB***   **GitHub**
- Implemented secure authentication using OAuth 2.0 with react-oauth to enhance account safety and convenience.
- Designed a system for Google Drive upload targets with folder IDs mapped to UUIDs in shared links for abstraction.
- Enabled anonymous file uploads via shared links using multer for backend handling and Google Drive APIs.
- Integrated controls for granting and revoking permissions on anonymous upload targets to manage access settings.

Blogger - A Blogging Platform | ***React.js, Redux-Toolkit, Node.js, Express.js, MongoDB***   **GitHub**
- Developed robust JWT-based authentication to ensure session integrity, and prevent unauthorized access.
- Designed content creation, posting, and searching in MongoDB using the KMP algorithm for string matching.
- Built user profiles showcasing content posting history & enabling social interactions such as follow & unfollow features.
- Delivered personalized feeds and recent activity of followed users via MongoDB aggregation pipelines.

CodeSync - A Realtime Collaborative Code Editor | ***React.js, Node.js, Express.js, Socket.io***   **GitHub**
- Built a real-time collaborative coding platform using Socket.io and CodeMirror with multi-supported themes.
- Enabled dynamic room creation with unique IDs via UUID and efficient management with Socket.io-adapter.
- Added user lists and typing indicators using debounce techniques to enhance collaboration.
- Synchronized edits in real-time using Socket.io with notifications via React Hot Toast for seamless teamwork.

InShare - A File Sharing App | ***Tailwind CSS, Vanilla JS, Node.js, Express.js, MongoDB***   **GitHub**
- Built a remote file-sharing platform using Multer for file handling, Cloudinary for cloud storage, and MongoDB.
- Implemented unique download links and dynamic download pages rendered with EJS for seamless file access.
- Added email notifications using Nodemailer and Mailgun SMTP to enhance communication with recipients.
- Automated 24-hour link expiration using Render's Cron Job scheduler for secure and efficient storage management.

Technical Skills

Programming Languages: C, C++, Java, JavaScript, SQL
Frontend Technologies: HTML, CSS, Bootstrap, Tailwind CSS, Vanilla JS, React.js, Redux-Toolkit
Backend Technologies: Node.js, Express.js, REST API, AJAX, JWT, Socket.io, Mongoose ODM, OAuth2.0
Databases & Caching: MongoDB, MySQL, SQLite, Redis
Version Control & Collaboration: Git & GitHub
Developer Tools: VS Code, Postman, Thunder Client
Containerization Tool: Docker
Deployment Platforms: Vercel, Render, Netlify, Heroku

Achievements

- Achieved 1700+ rating (top 11%) on LeetCode platform for exceptional problem-solving skills.
- Secured global ranking of 2700 among 30k+ users on LeetCode Weekly Contest.
- Solved 750+ Data Structures & Algorithms problems across LeetCode, CodeForces & GeeksForGeeks platforms.
- Secure 26th Rank in West Bengal Joint Entrance Examination Lateral Entry Test among 25,000+ candidates.

Leadership

Jadavpur University Code Club   Aug 2023 – Present
Mentor
- Organized 20+ collaborative sessions on Data Structures & Algorithms, fostering teamwork and peer learning.
- Organized 10+ competitive programming contests to enhance problem-solving skills.
- Coordinated 7+ hackathons focused on web development to foster practical learning and teamwork.