Tirthamoy Biswas

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Summary

I am an aspiring developer currently pursuing a B.Tech in Computer Science and Engineering. I possess diverse technical skills including frontend and backend development, along with database management. My training in various technologies such as React.js, React Native, Node.js, and MongoDB allows me to contribute efficiently to different projects.

Education

July 2024 – Present	**ELITE COLLEGE OF ENGINEERING**	**B.Tech - Computer Science and Engineering**
Aug 2021 – May 2024 CGPA: 8.7 / 10	**ELITE INSTITUTE OF ENGINEERING AND MANAGEMENT**	**Diploma - Computer Science and Technology**
Aug 2019 – May 2021 Percentage: 79%	**NIRJHAR HIGHER SECONDARY SCHOOL**	**Higher Secondary (H.S)**

Work Experience

EdTech Website Development Project   June 2024 – Sept 2024

- Built a responsive interface with React.js and MUI including student/admin dashboards and course catalog.
- Implemented JWT-based authentication, user registration, and password recovery using Nodemailer and MongoDB.
- Designed an RBAC-enabled admin dashboard for managing users, courses, and analytics.
- Ensured cross-device compatibility using CSS Grid, Flexbox, and MUI grid system.
- Developed REST APIs and handled backend authentication/database operations using Express.js and MongoDB.

Solar Industry Project – Frontend UI/UX   Oct 2024 – Dec 2024

- Designed clean,Responsive UI, modern UI using React.js, MUI, Magic UI, and Tailwind CSS.
- Integrated smooth animations and transitions with Framer Motion to enhance user experience.
- Worked closely with the design team to implement Figma-based designs pixel-perfectly.

E-commerce Mobile App – UI/UX   Jan 2025 – March 2025

- Designed user-friendly and responsive e-commerce UI using React Native.
- Focused on mobile-first UX principles and seamless navigation patterns.

Projects

Login Authentication System   **MERN Stack**

- Built a secure login system using the MERN stack with user registration and JWT-based authentication.
- Used bcrypt for password hashing and implemented email-based OTP verification via Nodemailer.

- Developed REST API endpoints for registration, login, OTP verification, and protected routes.
- Styled frontend using React.js and MUI for clean UI/UX.

Smart Education System – Machine Learning and Data Analysis **Python, NLTK, Scikit-learn, Matplotlib**
- Analyzed text files to extract relevant content based on keyword similarity.
- Used NLTK and Scikit-learn for NLP and ML-based similarity calculations.
- Created a user-friendly Python GUI to simplify navigation and usability.
- Enabled export of processed data as PDFs for future use.

Food Recipe Search Application **React.js, MUI, Public Web API**
- Developed a responsive web app to search/view recipes by name or category.
- Designed clean, interactive UI using React.js and MUI.
- Integrated with a public API to fetch recipe data dynamically.
- Embedded video guides for step-by-step cooking instructions.
- Deployed on Netlify for global access.

Global News App **React Native, TypeScript, Web API**
- Built a mobile app using React Native and NewsData.io API to browse and read news by category.
- Added bookmarking via AsyncStorage and deep linking to full articles.
- Used React Navigation and Context API for state management and smooth navigation.
- Designed a clean, responsive UI optimized for Android devices.

TaskManager Web App **MERN Stack, Tailwind CSS, MUI**
- Built a task management app using React (Vite), Express.js, and MongoDB Atlas.
- Implemented JWT-based authentication and secure REST APIs with bcrypt hashing.
- UI designed using Tailwind CSS and MUI for dynamic task views (pending, completed, stats).
- Deployed frontend on Vercel and backend on Render for full-stack deployment.

Skills

Languages: JavaScript, TypeScript, Python, SQL

Databases: MongoDB, MySQL, PostgreSQL

Web Development: HTML, CSS, JavaScript

Frontend: React.js, Angular.js, Bootstrap, MUI, Tailwind, Three.js

Backend: Node.js, Express.js

Android: React Native, Expo

Tools: VS Code, Git & GitHub, Postman, Android Studio, Figma, XAMPP, Vercel, Stack Overflow