Dipu Kumar Sah

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EDUCATION

RR Institute of technology   Bengaluru, India
B.E. in Computer Science & Engineering (GPA: 7.86/10.0)   *Aug 2020 – June 2024*

OM National Academy   Birgunj, Nepal
Pre-University Percentage: 71.5%   *Aug 2017 – May 2019*

PROJECTS

Weather App | (weather-kappa-orpin-32.vercel.app/)   GitHub
React.js, React-Router-Dom, Api Handling, Tailwind CSS   *ReactJS*

• Developed a responsive weather app using React and Tailwind CSS, **integrating OpenWeather and LocationIQ APIs** to fetch and display real-time weather data based on user input.

• Handled **API requests with Axios, implemented user input formatting for location searches**, and ensured smooth error handling and **mobile responsiveness for optimal user experience**.

• Overcame challenges in **managing multiple APIs** and creating a scrollable weather forecast, resulting in a functional app that **works seamlessly on both desktop and mobile devices**.

Batch Management | (batchmanagemnt.vercel.app/)   GitHub Frontend   GitHub Backend
React.js, Redux, Node.js, Express.js, Tailwind CSS, MongoDB   *MERN Full Stack*

• Developed a robust web application for student batch management, leveraging **Reactjs, Redux, NodeJS, ExpressJS, tailwind css and MongoDB**. Implemented **secure authentication using JWT and cookies**, ensuring sensitive information is protected.

• Designed and implemented **RESTful APIs** to facilitate efficient management of student data, including **CRUD operations**, error handling and security measures to protect user data. Utilized Formik and Yup for robust form validation and user input handling.

• Successfully **deployed the application on cloud based services Vercel and Render**, overcoming **CORS challenges** to ensure seamless communication between front-end and back-end components.

Timetable Generating System   GitHub Frontend   GitHub Backend
React, React Router, Nodejs, Express, MongoDB   *MERN Stack*

• Developed a web app for schools and universities using a **custom-built genetic algorithm** to automate timetable generation based on teacher inputs, ensuring conflict-free scheduling.

• Implemented back end functionalities with javascript, nodejs, Expressjs, and mongodb for user authentication, data storage, and Restful API; and built a responsive react front end with React Router for smooth navigation.

• Overcame challenges in designing and writing the genetic algorithm to **manage multiple constraints efficiently, reducing manual workload** and improving scheduling accuracy for educational institutions.

EXPERIENCE

Mobile App Development Android — Intern   July 2023 - Oct 2023
Analysed   *LETTER OF INTERNSHIP APPRECIATION*

• Developed an **automated email-sending** feature using PHP and MySQL for user signup, while enhancing the user interface and integrating rest api modifications for weight tracking and statistics.

• Implemented **OTP-based password resets**, profile management with picture updates, and thoroughly tested in-app/push notifications for sleep tracking and step count.

• **Overcame challenges in integrating email automation with backend systems** and optimizing real-time data handling, improving user engagement and app reliability.

TECHNICAL SKILLS

JavaScript and MERN Stack: javascript , NodeJs, TypeScript, ReactJS, ExpressJS, Redux, React Router, MongoDB, GraphQL

Java and Spring Boot:java, JDBC, hibernate, jpa, Spring Framework, Spring Boot, sql, postgresql

Other languages & Tools: c, python, react native, php, ajax, git, github, postman, nosql, mongooes, API Development