Pratik Raj Verma

Full-Stack Web Developer

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BTech	Information Technology
Gender	Male
DOB	14/09/2001

ACADEMICS

Examination	University	Institute	Year	Grade
Graduation	Rajasthan Technical University	Arya college of Engineering and IT	2020-24	8.67 CGPA

KEY PROJECTS

<u>Local Area Teacher Interaction Platform</u>: - (https://thehacktech.vercel.app)

(Feb 24 - May 24)

Description: Spearheaded the development of a sophisticated MERN stack web application enabling localized teacher-student interaction through **pin code-based** searches, comprehensive profiles, and video demos.

Key Contributions:

- **Frontend Development:** Architected a user-centric frontend using **React.js**, ensuring seamless navigation and optimal user experience. Managed global state with **React-Redux** and styled the application using Tailwind CSS for **responsive design**. Handled HTTP requests and API interactions using **Axios**, and utilized React **hooks** (useState, useEffect, useDispatch, useSelector, useNavigate etc) for specific
- Backend Development: Engineered robust backend functionalities with Node.js and Express.js, facilitating secure and efficient server operations. Employed Nodemon for real-time server updates and tested APIs using Postman.
- Database Management: Implemented Leveraged MongoDB for efficient storage and retrieval of user profiles and communication logs. Integrated Cloudinary for managing video data, enhancing storage capabilities.
- Security Measures: Implemented secure user authentication and authorization mechanisms using JWT, with session management via cookies and password hashing using Bcrypt. Implemented Enhanced security through OTP-based user verification using OTP Generator, and email notifications via Nodemailer. Used crypto-random-string to generate secure tokens for various functionalities, ensuring data integrity and security.
- Additional Features: Developed advanced search filters to improve course discovery Ensured adherence to industry best practices for data security and robust performance under varying conditions.

Course-Preneur: Ed-Tech Project: -

(Aug 23 - Dec 23)

Description: Course-Preneur is an ed-tech platform developed using the MERN stack. This platform enables users to create, consume, and rate educational content, and provides instructors with comprehensive tools to create, manage, and showcase their courses

Key Contributions:

- Frontend Development: Developed the front end using ReactJS. Utilized Redux for efficient state management and Redux Thunk for asynchronous operations. Implemented React-Router for seamless navigation and protected routes for secure access. Used Axios for data communication with APIs. Employed lazy loading and React hooks. Implemented protected routes for user authentication and authorization. Designed a comprehensive dashboard using react-chartis-2 and Chart.js for visualizing income, student statistics, and course sales. Integrated a user rating system using react-rating-stars-component. Utilized react-super-responsive-table for displaying data tables. Integrated **Swiper** for an interactive course showcase carousel.
- Backend Development: Implemented using NodeJS and ExpressJS, Integrated Razorpay and Webhook for secure payment processing, confirmations and updates. Developed middleware for request validation. Integrated Nodemailer for sending automated email notifications.
- Database Management: Use MongoDB for efficient storage and retrieval of user profiles and communication logs. Integrated Cloudinary for managing video data and enhancing storage capabilities.
- Security Measures: : Implemented secure token-based authentication using JWT, with session management via cookies and Employed Bcrypt for password hashing. Enhanced security through OTP-based verification using OTP-Generator and email notifications via Nodemailer. Developed Razorpay integration for a secure payment gateway, ensuring encrypted transaction handling

TECHNICAL SKILLS

Language: C++ | Javascript

Front End: HTML | CSS | Javascript | React.js | Tailwind CSS | Figma

Back End: Node.js | Express.js | Mongoose | Nodemon

Database:

Tools: VS-Code | Postman | Git | Github | Version Control | Browser Developer Tool

CORE SKILLS

- Object-Oriented programming System
- Data Structure & Algorithms
- **Computer Networking**
- Database Management system
- **Operating System**

OTHER ACTIVITIES

Certified for research paper in resolving the issue of "Callback Hell" in JavaScript through the utilization of Promise and Async-Await mechanisms in International Journal of Research Publication

(research paper)

Researched and implemented strategies to enhance code readability, maintainability, and performance in asynchronous JavaScript programming paradigms.

(certificate)

Competitive Programming:

LeetCode: Completed 100+ questions, demonstrating proficiency in problem-solving and algorithmic thinking. CodeChef: Achieved rating of 1000+, showcasing coding skills and problem-solving ability in competitive programming (Codechef Acc.)

(Leetcode Acc.)