EDUCATION

Indian Institute of Technology, Mandi

Himachal Pradesh, India

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B. Tech in Computer Science and Engineering; CGPA: 7.88/10

2023 - 27

• Relevant Coursework: Data Structures & Algorithms, Design and Analysis of Algorithms, DBMS, Artificial Intelligence & Machine Learning, Deep Learning

TECHNICAL SKILLS

- Languages: C++, Python, JavaScript
- Frameworks & Technologies: Next.js, Express.js, MongoDB, React, TensorFlow, Scikit-learn
- Tools: Git & GitHub, Visual Studio Code, Docker, Linux, Postman, LaTeX, Jupyter Notebook, Google Colab

PROJECTS

Book Store Application

2024

MongoDB, Express.js, React, Node.js, Tailwind CSS

GitHub

- Full-Stack Development: Designed and developed a fully responsive Book Store web application with a seamless user experience. Implemented authentication, book management, and an interactive user dashboard.
- Secure Authentication and Role-Based Access Control: Implemented a robust authentication system with encrypted passwords (bcrypt) and JWT-based authentication. Integrated role-based access control (RBAC) for Admin, Editor, and Customer roles, ensuring restricted API access based on permissions. Developed an intuitive admin panel for managing books, users, and orders, enabling CRUD operations and automated stock updates.
- Modern UI/UX Design: Designed a sleek and modern frontend using React and Tailwind CSS. Used reusable components and responsive design principles to enhance user experience across devices.

MERN Authentication System

2024

MongoDB, Express.js, React, Node.js, Tailwind CSS

GitHub

- Complete Authentication System: Developed a secure authentication system with Email Verification and Password Reset using a 6-digit OTP.
- Backend Development: Built a backend server using MongoDB, Express.js, and Node.js to handle authentication requests. Implemented JWT (JsonWebToken) for secure authentication.
- Frontend Development: Designed a responsive client application using React and Tailwind CSS. Developed Login, Registration, and Password Reset forms with an OTP input field. Integrated the frontend with backend APIs for seamless authentication.

NASA Space Hackathon Project - Project Kavtan

GitHub Final Project

React, Next.js, Flask, Scipy, Folium for Machine Learning and Data Visualization

2023

- Challenge: Developed a web-based tool to analyze greenhouse gas emissions using AI and space agency datasets.
- **Key Features**: Developed ML models (Random Forest) with **0.98** R² for emission trend analysis. Created heatmap visualizations and dynamic graphs to support policymakers.
- Data Sources: Integrated datasets from NASA OCO2, SEDAC, MiCASA, and Footprintnetwork.

ACHIEVEMENTS

- NASA Space Hackathon: Won 1st place at Chandigarh and ranked in the Top 40 globally.
- ATF Coding Test 2024: Qualified for Stage 2, ranked in the top 7% among 20,000 participants.

Positions of Responsibility

- Head of PnM, Xpecto'25: Led the planning and execution of Xpecto'25, the premier technical fest of the Himalayas. Organized events, workshops, and pronites, ensuring an engaging and successful fest.
- Core Member, SnTC (Science & Technology Council): Coordinated and managed major technical events like TIP and Utkarsh, ensuring smooth execution and maximizing participant engagement.
- Core Member, STAC (Space Technology and Astronomy Cell): Maintained and enhanced the STAC website while actively participating in space-tech hackathons.