SANJANA MITTAPALLY

Warangal, Telangana, India

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Education

Indian Institute of Technology Dharwad <div align="right">**2021 − 2025**</div>

Bachelor of Technology in Mechanical Engineering; Minor in Computer Science Engineering <div align="right">*CPI: 8.22*</div>

Experience

CodeUnity Technologies <div align="right">**July 2024 − present**</div>

SDE Intern <div align="right">*Remote*</div>

- Developed a WebSocket server for message handling using Kafka and RabbitMQ as message brokers, with TypeScript enhancing code quality and maintainability.
- Utilized Node.js and Docker to build and deploy the application, ensuring seamless integration and efficient containerized operations.
- Worked on MongoDB change streams to monitor real-time database changes and integrated these updates into Google BigQuery for advanced data warehousing and analytics.
- Utilized analytics tools like Amplitude and MoEngage to gain insights and improve user engagement.

Indian Institute of Technology Dharwad <div align="right">**August - Nov 2024**</div>

Research and Development Project under Professor Rakesh Lingham

- Worked on a research and development project focused on automating SolidWorks software using VBScript and C++. The project combined mechanical engineering principles with computer science techniques.
- Developed and implemented automation scripts for incremental forming to enhance the functionality of SolidWorks, improving efficiency and streamlining mechanical design processes by collaborating closely with the professor.

Projects

Blood Bank System

- Designed and developed a comprehensive Blood Bank Management System using the MERN stack. The platform allows authorized users, including administrators, organizations, donors, and hospitals, to securely log in and access blood donation records, facilitating efficient blood supply management.
- Implemented role-based access control to ensure that each user type accesses only the relevant blood records and functionalities. Admins can manage users and monitor overall system activity, while organizations, donors, and hospitals can view and manage blood records within their respective scopes
- Utilized MongoDB for data storage, Express.js for RESTful API development, React.js for the dynamic user interface, Node.js for server-side logic, and JWT (JSON Web Tokens) for secure authentication.

eCommerce Application

- Created a versatile eCommerce platform designed to facilitate seamless online shopping experiences. Utilizing the MERN stack, the platform accommodates multiple user roles—customers, administrators, and sellers—each with tailored functionalities to enhance user engagement and streamline operations.
- Implemented a secure user authentication system that differentiates roles and permissions, ensuring a smooth and personalized shopping experience.
- Customers can explore a diverse product range, make purchases, and manage orders, while sellers can list products and track sales.
- MongoDB was employed for scalable data storage, with a responsive front-end developed using React.js and a RESTful API powered by Express.js.

IUHD (IIT Dharwad Unified HelpDesk)

- Developed a comprehensive grievance redressal application covering hostel, electricity, food, water, and mess-related issues at IIT Dharwad. Leading development to enhance campus communication and efficiency.
- Features include centralized complaint registration, upvoting for priority, admin approval, and progress tracking.
- Implemented user authentication, authorization, and secure data handling to ensure confidentiality and integrity of user information.
- Technologies used: MongoDB, Express.js, React.js, Node.js, Tailwind CSS, RESTful API

Skills

- **Languages**: C,C++,HTML/CSS,JavaScript,TypeScript,SQL.
- **Frameworks/Libraries**: Node.js, Express.js, React.js,Bootstrap.
- **Databases**: MongoDB, PostgreSQL, MySQL.
- **Tools/Platforms**:VS Code, Git, Github, Postman.

Relevant Coursework

- ∗ Data Structures and Algorithms
- ∗ Software Systems
- ∗ Operating Systems

Positions of Responsibility & Achievements

Assistant student mentor Coordinator(Sub Head) of Institute Student Mentorship Program (SMP)

- As Assistant Student Mentor Coordinator, led mentor selection through interviews, ensuring successful matches for junior students. Coordinated and provided guidance to students, contributing to the effectiveness of the Institute Student Mentorship Program.

1st place in Case Study Competition

- Secured top place in "Avadhan 2023" Case Study Competition, highlighting exceptional analytical and problem-solving abilities.

Tech Fest Hackathon Competitor

- Advanced to the second round of Devhack at IIT Dharwad, completing projects within a rigorous 36-hour timeframe. Collaborated on diverse teams, presenting innovative solutions to judges.