

VEMPATI KEERTHI

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Education

International Institute of Information Technology Hyderabad 2023 – 2027

Bachelor of Technology in Computer Science and Engineering

Rajiv Gandhi University of Knowledge Technologies 2021 – 2023

Pre-University Course (11th & 12th Class)

Experience

Learning Management System (EdTech Platform) | MERN Stack April 2025

- Developed a comprehensive online learning platform for an NGO with multi-role architecture supporting Super Administrators, Administrators, Teachers, and Students across multiple courses and batches.
- Implemented a scalable content management system supporting text documents, PDFs, audio files, and video content with assignment submission tracking and individual progress monitoring.
- Built interactive communication channels between faculty and participants, secure user authentication, and a responsive design using React.js frontend, Node.js/Express.js backend, and MongoDB database.

Projects

Buy-Sell @ IIITH | MERN Stack February 2025

- Developed an e-commerce platform for the IIIT community with user authentication, product management, and AI-powered chatbot support using React, Express/Node.js, and MongoDB.

Network File System | C, Operating Systems October 2024

- Designed a distributed file system with Naming Server and Storage Servers supporting read/write operations, file streaming, copying, and replication for fault tolerance with proper synchronization mechanisms.

C-Shell | C, Operating Systems September 2024

- Built a fully functioning shell with command parsing, job control, directory navigation, file listing, history management, and file search with process management and I/O redirection capabilities.

XV6 Operating System Enhancements | C, Operating Systems September 2024

- Extended XV6 kernel with additional system calls and implemented advanced scheduling algorithms (Round Robin, LBS, MLFQ), enhancing low-level system programming skills.

Image to Video Converter | Flask, JavaScript, Python March 2024

- Created a web application for converting uploaded images into videos with audio features, implementing user authentication and secure file upload systems.

Technical Skills

Languages: C/C++, Python, JavaScript

Frameworks: React, Express.js, Flask, FastAPI, Next.js

Libraries: pandas, NumPy, Matplotlib

Databases: MongoDB, MySQL

Tools & Technologies: Docker, Bash Scripting, Git & GitHub

Coursework

Data Structures and Algorithms | Introduction to Software Systems | Computer Systems Organization

Operating Systems and Networks | Machine and Data Learning | Internet of Things

Design and Analysis of Software Systems | Probability and Statistics | Digital Systems and Microcontrollers

Algorithms Analysis and Design | Automata Theory | Data and Applications | Embedded Systems and Workshop