HITESH YASAM

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 LinkedIn   Portfolio   Github   **Prakasam district , Andhra Pradesh**

EDUCATION

Degree	Specialization	Institute	Year
B.Tech	Electrical Engineering	Indian Institute of Technology, Palakkad	2021–2025
Class XII	Physics, Chemistry & Mathematics	Sri Chaitanya Junior College	2021
Class X	General Studies (ICSE Syllabus)	St Ann's Englsih Medium High School	2019

TECHNICAL SKILLS

Programming Languages: C++, C, Python, JavaScript
Frameworks/Tools: React JS, Drupal, Git, GitHub.
Web Development: HTML, CSS, TailWind CSS, Javascript, Node JS, React JS.
Databases: MySQL, MongoDB.
Core Concepts: Data Structures & Algorithms, Object-Oriented Programming, OS, DBMS.

PROFESSIONAL EXPERIENCE

Research Intern   *Research Centre Imarat (RCI), DRDO, Hyderabad*

- Researched power sources, including independent and controlled power supplies for energy efficiency.
- Analyzed supercapacitors for energy storage in hybrid vehicles and renewable energy systems.
- Designed and simulated Battery Management System (BMS) with advanced protection mechanisms.
- Investigated centralized, modular, and distributed BMS architectures for optimal energy management.
- Worked on MOSFET-based power regulation, thermal management, circuit simulation techniques.   Link

Web Development Intern   *OctaNet Services Pvt Ltd*

- Developed a responsive landing page using HTML, CSS, and JavaScript for improved user experience.
- Built a Todo List app with React.js, JavaScript, HTML, and CSS, using LocalStorage for data persistence.
- Implemented state management, event handling, and DOM manipulation for interactive UI functionality.
- Optimized front-end performance through efficient component structuring and data handling techniques.
- Enhanced full-stack development skills with a focus on front-end frameworks and web storage.   Link

PROJECTS

BigSync   *Python, FastAPI, React, Chart.js, Pandas, NumPy, Excel Data Processing]*

- **Designed and developed** a fault detection and classification system using **sequence components (I1, I2, I0)** to analyze power system faults.
- **Implemented** a **FastAPI-based backend** to process Excel data and classify faults based on phase angles and magnitudes.
- **Built** a dynamic **React frontend** with interactive **Chart.js visualizations** for fault current plots.
- **Integrated file upload functionality** to process real-world **relay-measured current data**.
- **Developed REST APIs** to enable smooth communication between frontend and backend components.
- **Optimized data processing** using **NumPy** and **Pandas**, ensuring performance on large datasets.
- **Implemented a custom DFT algorithm** for extracting frequency components from input signals.
- **Developed** both **sample-to-sample** and **cycle-to-cycle fault detection algorithms** to enhance accuracy.
- **Ensured cross-platform compatibility** and a responsive interface using **Material-UI** and **React**.   Link

Personal Portfolio Website   *[React, JavaScript, HTML, CSS, Git, GitHub]*

- **Designed and developed** a personal portfolio website to showcase skills, projects, and achievements using **React** for fast and efficient development.
- **Implemented routing** and **component-based architecture** to separate and manage different sections (Home, Projects, Contact, About) of the site.
- **Utilized React hooks and props** for state management and dynamic content rendering.

- **Created a clean, responsive UI** using **Tailwind CSS**.
- **Implemented data abstraction** by centralizing content in a single `myInfo.js` file, enabling easy updates without modifying component logic.
- **Managed source code and version control** using **Git**, hosting the repository on **GitHub** for collaborative development and deployment. [Link](#)

Advanced Spotify Clone   *[HTML, CSS, JavaScript]*

- **Designed and developed** a functional Spotify-like music player with a dynamic UI and real-time updates.
- **Implemented** a responsive music bar with play/pause, next/previous, seek bar, and volume control.
- **Automated album and song detection**, requiring only JSON metadata for album titles and descriptions.
- **Developed real-time song duration updates** and dynamic SVG transitions for UI responsiveness.
- **Built a dynamic album display** that loads and updates instantly upon selection.
- **Utilized AI-generated SVGs** for improved aesthetics and interactive elements. [Link](#)

Todo List Web App   *React, Tailwind CSS, LocalStorage]*

- **Developed** a responsive Todo List web app using React and Tailwind CSS with full CRUD functionality.
- **Implemented** persistent storage of tasks using LocalStorage to retain data across sessions.
- **Integrated** unique ID generation via the `uuid` library to manage individual tasks.
- **Utilized** React hooks like `useState` and `useEffect` for dynamic state management and real-time UI updates.
- **Built** interactive features including checkbox toggling, in-place editing, and deletion. [Link](#)

RSD 7.0 Website   *[HTML, CSS, JavaScript]*

- **Designed and developed** a responsive website for **RSD 7.0: Pravaha**, IIT Palakkad's Research event.
- **Implemented** a structured, user-friendly UI using **HTML, CSS (Bootstrap), and JavaScript**.
- **Developed dynamic sections** for event details, registration, schedule, and team introduction.
- **Integrated external links** for submissions, registrations, and guidelines using Google Forms and PDFs.
- **Optimized the website** for accessibility and cross-device compatibility. [Link](#)

ACHIEVEMENTS

- Specialist in Codeforces.
- Rating of 3-stars on CodeChef.

EXTRA CURRICULAR ACTIVITIES

- Member of YACC (Yet Anthor Coding Club)
- Member of Bioscope (Cinematic Club)
- Member of Shutterbug (Photographic Club)