Mithurn Jeromme

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Skills

- **Frontend Development:** HTML5 semantic markup, CSS3, SCSS (Sass), Tailwind CSS utility-first framework, Vanilla JavaScript ES6+, React.js component-based architecture, state management, and hooks
- **Backend Development**: Node.js runtime environment, Express.js framework for RESTful API design, middleware integration, asynchronous programming with Promises and async/await
- **Databases**: MongoDB document-oriented NoSQL database, Mongoose ODM, schema design, CRUD operations, indexing for performance
- **Version Control & Deployment**: Git version control, GitHub collaboration workflows (branching, pull requests), Continuous Integration & Continuous Deployment (CI/CD) pipelines, basic cloud deployment concepts (e.g., Vercel, Heroku)
- **AIoT & Embedded Systems**: Arduino IDE programming, ESP8266/ESP32 microcontrollers, sensor interfacing (temperature, humidity, motion), MQTT protocol for IoT communication, basic circuit design and electronics troubleshooting

Experience

Freelance Web Developer **2024 - Present**
Self-Employed

- Developed responsive, user-friendly websites using HTML5, CSS3, JavaScript, React.js, and Tailwind CSS. Built backend APIs with
- Node.js and Express.js to support dynamic web applications.
- Integrated MongoDB databases for efficient data storage and retrieval.
- Deployed projects on platforms like Vercel and Heroku, managing version control with Git and GitHub.
- Collaborated with clients to understand requirements and deliver tailored web solutions.
- Gained experience in CI/CD pipelines to automate testing and deployment processes.

AIoT Medical Robot Car Project **2025(January- May)**
Course Work/Project

- Designed and developed a medical robot car integrating AIoT technologies using Arduino IDE and ESP32 microcontroller for real-time control and data processing.
- Implemented sensor interfacing with ultrasonic sensors, temperature sensors, and IR sensors for obstacle detection, environmental monitoring, and navigation.
- Programmed device communication using MQTT protocol to enable wireless data transmission between the robot and a remote monitoring system.
- Developed firmware for autonomous navigation and safety protocols using C/C++ within the Arduino environment.
- Integrated basic AI algorithms for object recognition and path planning to enhance robot functionality.
- Utilized Wi-Fi connectivity for remote control and data logging, enabling live monitoring via a custom dashboard.
- Applied fundamentals of embedded systems, electronics circuit design, and troubleshooting to ensure reliable operation.

Projects

- **AIOT Medical Robot Car -** Developed an AIoT-enabled medical robot car to automate medicine delivery and patient monitoring, enhancing healthcare efficiency and safety. Utilized advanced sensors, ESP32 microcontroller, and MQTT for real-time autonomous operation and remote monitoring.
- **AIR SCAN** - Built a responsive web app that displays real-time air quality data using public APIs, helping users make informed health decisions. Implemented with React.js, Tailwind CSS, and Node.js, with dynamic API integration and intuitive UI/UX design.

Education

Bachelor of Technology *SRM Institute Of Science and Technology* *Chennai,TN,INDIA* **2023 - present**

- *Major in Computer Science and Technology*

A Levels / AS Levels *St.Assisi World School* *Madurai,TN,INDIA* ***2019 - 2023***

- *Computer Science,Mathematics,Physics,Chemistry*