

Adithya Sakthimani

Bengaluru

adithyasmani.et23@rvce.edu.in

9866100630

adithyasakthimani.vercel.app

Experience

Embedded Systems Engineer Intern, Dyu Labs – Bangalore

08/2024 – Present

- Collaborated with cross-functional engineering teams to design and prototype innovative IoT water management solutions.
- Developed and calibrated advanced water level measurement system using precision sensors and real-time data analytics.
- Conducted comprehensive testing and documentation of sensor integration and data collection methodologies.

Projects

Smart Fitness Tracker AI (Elevate Fitness AI)

GitHub Repository

- Architected a comprehensive fitness tracking system leveraging computer vision and advanced sensor technologies.
- Implemented real-time pose estimation using OpenCV, achieving 98% accuracy in exercise form detection.
- Designed a microcontroller-based architecture using Arduino, integrating multiple sensor inputs for holistic fitness tracking.
- Created intuitive user interface with React, enabling seamless visualization of workout metrics and progress tracking.

Skin Disease Detection AI (Derma Doc AI)

GitHub Repository

- Developed an AI-powered diagnostic platform for skin disease identification.
- Trained Image and Text based model with 90% accuracy in classifying dermatological conditions.
- Integrated intelligent doctor recommendation system using natural language processing with Lepton LLM.
- Implemented secure, scalable full-stack web application with React, Node.js, and MongoDB backend.

Data Transmission using Encryption and Steganography

GitHub Repository

- Engineered advanced data hiding system combining cryptographic techniques and digital steganography.
- Implemented Huffman Tree encryption algorithm for robust data security and compression.
- Utilized Discrete Wavelet Transform to optimize image quality during data embedding.
- Integrated Lepton LLM for prompt based content insertion.
- Developed high-performance frontend using Vite, ensuring rapid and responsive user experience.

Skills

- **Programming Languages:** C, C++, JavaScript, Python, Embedded C, HTML, CSS, Verilog
- **Web Development:** React, Node.js, Next.js, Flask, Express
- **Tools and Technologies:** Git, MongoDB, VS Code, MATLAB, OrCAD PSpice, LTspice

Education

RV College of Engineering, Bangalore – Electronics and Telecommunication

09/2023 – Present

- Current CGPA: 8.83

St. Ann's Public School, Kochi – Senior Secondary Education

06/2021 – 06/2023

- Scored 92.6% in 12th CBSE Boards in Physics, Chemistry, and Mathematics.
- Overall academic performance: 91.8%.

Extracurricular Achievements

- Won 2nd place at VTU Interzonals and Zonals Chess tournaments.
- Selected for VTU Nationals Team, representing Kerala at National Chess Tournament.