Adithya Sakthimani

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Location: Bengaluru

EXPERIENCE

Dyu Labs, Bangalore — *Embedded Systems Engineer Intern*
08/2024 – Present

- Participated in workshops and presentations focused on IoT solutions.
- Contributed to building and implementing a water level measurement system to gain hands-on experience.

PROJECTS

Smart Fitness Tracker AI (Elevate Fitness AI)
Developed a comprehensive fitness tracking system leveraging OpenCV for real-time pose estimation to ensure proper exercise form and track repetitions.

- Integrated real-time sensors for heart rate monitoring (MAX30100), calorie tracking, and workout analysis using Embedded C.
- The system features a user-friendly web interface built with React, Node.js, and Express, along with a MongoDB database for personalized goal tracking and progress visualization.
- GitHub link: Smart Exercise Trainer Kit.

Skin Disease Detection AI (Derma Doc AI)
Developed an AI-powered platform trained on a dataset of skin diseases and images to accurately diagnose conditions.

- Utilized TensorFlow for image analysis and Lepton LLM for processing text-based user queries, offering an interactive experience like consulting a doctor.
- The platform also suggests nearby doctors based on the diagnosed condition. Built with a React frontend and Flask, Express, and MongoDB backend for seamless data management and real-time feedback.
- GitHub link: Derma Doc AI.

Image Steganography
Developed a secure image steganography platform that embeds hidden messages in images, using Huffman Tree for efficient text encryption.

- The system employs Discrete Wavelet Transform (DWT) and Haar Transform for embedding the encrypted data into the image, ensuring both security and high-quality image integrity.
- The frontend is built using Vite for fast and modern web development, providing an intuitive interface for users to easily encrypt and decode messages.
- GitHub link: Image Steganography.

EDUCATION

RV College of Engineering, Bangalore — *Electronics and Telecommunication*
09/2023 – Present

- Current CGPA (End of Second Semester): 8.83

St. Ann's Public School, Kochi
06/2021 – 06/2023

- Scored 92.6 % in 12 th CBSE Boards in PCM and 91.8 % overall

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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

EXTRACURRICULAR ACHIEVEMENTS

- Won 2nd Place by representing RVCE at VTU Interzonals and Zonals Chess tournaments.
- Selected for VTU Nationals Team and Represented Kerala at Nation Chess tournament in Nashik.