# **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 Al-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: <u>Derma Doc Al</u>.

#### Image Steganography

 $Developed\ a\ secure\ image\ stegan ography\ platform\ that\ embeds\ hidden\ messages\ in\ images,\ using\ Huffman\ Tree\ for\ efficient\ text\ encryption.$ 

- 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: <u>Image Steganography</u>.

### **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

# **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.
- o Selected for VTU Nationals Team and Represented Kerala at Nation Chess tournament in Nashik.