

# Adithya Sakthimani

Bengaluru

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9866100630

Personal Website

## Experience

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**Embedded Systems Engineer Intern**, Dyu Labs – Bangalore

08/2024 – Present

- Collaborated with cross-functional engineering teams on **IoT water management prototypes**.
- Developed a **precision water level measurement system** using cutting-edge sensor technologies.
- Performed comprehensive testing and documentation of sensor integration methodologies.

## Projects

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**Elevate Fitness AI**

[Github Link](#)

- Architected an **AI-powered fitness tracking system** that integrates advanced computer vision with sensor technologies to provide real-time exercise analysis.
- **Achieved 98% accuracy** in pose estimation through sophisticated OpenCV implementation.
- Created a full-stack application utilizing **React.js, Flask, and Node.js** with **MongoDB** for comprehensive performance tracking.
- Implemented a workout analytics dashboard using Arduino microcontroller for seamless data integration.

**Derma Doc AI**

[Github Link](#)

- Developed an **AI diagnostic platform** for advanced dermatological condition identification using machine learning.
- **Trained a neural network model achieving 90% accuracy** in precise disease classification.
- Built a scalable web application integrating **React, Flask, Node.js, and MongoDB** with robust medical image analysis capabilities.
- Implemented an intelligent doctor recommendation system powered by Lepton LLM.
- Designed secure user authentication with a responsive medical information interface.

**Encryption and Steganography Solution**

[Github Link](#)

- Engineered an **advanced data hiding system** combining sophisticated cryptographic and steganographic techniques.
- Applied **Huffman Tree encryption** to optimize data security and compression.
- Utilized Discrete Wavelet Transform to maintain high image quality during data embedding.
- Developed a high-performance frontend with Vite for enhanced user experience.
- Integrated Lepton LLM for intelligent content management and security enhancement.

## Skills

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

## Education

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**RV College of Engineering, Bangalore** – Electronics and Telecommunication

09/2023 – Present

- Maintaining **8.83 CGPA** in Electronics and Telecommunication Engineering program.

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

06/2021 – 06/2023

- Achieved **92.6% in 12th CBSE Boards** (Physics, Chemistry, Mathematics).
- Secured **91.8% overall academic performance**.