

# SUDHARSAN RAM M

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👤 Sudharsanram    📄 [portfolio](#)

## Executive Summary

Final-year Computer Science graduate specialized in IoT and Full Stack Development. Experienced in building scalable web applications using ReactJS and NodeJS, and deploying machine learning models with 95%+ accuracy. Seeking a Software Developer role to leverage skills in Java, Python, and Cloud Computing.

## Education

### SAVEETHA ENGINEERING COLLEGE | CHENNAI

2022 – 2026

Bachelor of Engineering, Computer Science and Engineering specialized in Internet of things

- CGPA: 8.13/10

## Internship Experience

### Connect Infosystem

Web Designing and Development

June 2024 – July 2024

- Developed a responsive e-commerce platform for computer accessories using **HTML5, CSS3, and JavaScript**, ensuring 100% mobile compatibility
- Designed an intuitive User Interface (UI) that improved navigation and reduced page load times by **20%** through optimized code structure.
- Conducted rigorous cross-browser testing and debugging to ensure seamless functionality across Chrome, Firefox, and Edge

## Technologies

**Languages:** C • Java • JavaScript • Python

**Frontend:** ReactJS • HTML • CSS

**Backend:** NodeJS • SQL

**Tools & DevOps:** Git • GitHub • VS Code • Postman • Google Colab.

**Non-Technical:** Communication • Analytical Skills • Creativity • Leadership • Self Motivated

## Projects

### Smart Dam Monitoring System using IoT, Machine Learning, and Computer Vision

[GitHub](#) ↗

- **Integrated IoT & Machine Learning:** Developed an intelligent system using **ESP32 microcontrollers** and **IoT sensors** (DHT11, HC-SR04, SW-420) for comprehensive environmental monitoring and automated water level management.
- **Predictive Analytics:** Implemented a **Random Forest classifier** achieving **92.3% accuracy** in rainfall prediction to enable proactive water level adjustments and reduce emergency valve operations.
- **Computer Vision Safety:** Deployed **YOLOv8n** for real-time human detection in hazardous zones with **95.8% accuracy**, ensuring a **100% success rate** in fail-safe valve closure during human presence.
- **Full-Stack Dashboard:** Built a comprehensive monitoring dashboard using **React** and a **Flask-based REST API** with **MongoDB** for real-time data visualization and role-based access control.
- **Performance Optimization:** Leveraged **edge computing** on the ESP32 to achieve a **2.5-second emergency response time** while maintaining optimal water levels for 87% of the operation time

## **Certificate**

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- IBM Z Datathon 2023 and 2024 - A Global Datathon Event - Shooting Stars Foundation (IBM)
- Dynamic Public Speaking Specialization - University of Washington
- Cloud Computing – NPTEL
- IOT web interface development conducted by Novitech R&D Private Limited.