Raga Vinay Dewarsetty

Aspiring Embedded Systems Engineer - Software Engineer Student

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Summary

Passionate Electronics and Communication Engineering student with hands-on experience in Embedded Systems, IoT, Automation, and Machine Learning. Strong programming skills and expertise in Microcontrollers, Firmware Development, and Real-Time Systems. Looking for opportunities to apply skills in system design, optimization, and software development.

Education

B. Tech. in Electronics and Communication Engineering, 2022 – 2026 | Bengaluru, India
Amrita Vishwa Vidyapeetham, Bengaluru
Current CGPA: 7.1
Minor degree: Artificial Intelligence Machine Learning (2023-2026)

Secondary School Education, 2020 – 2022 | Hyderabad, India
Sri Chaitanya Educational Institutions, Hyderabad - 95.1%

Skills

Programming
C++ | Python | Java Script

Machine Learning
Scikit-Learn | Feature Engineering | Tkinter

VLSI Design
Verilog | DSCH2 | Xilinx Vivado

Tools Used
VS Code | Arduino IDE | MATLAB

Projects

Heart Disease Prediction System using Machine Learning and Python GUI

- Developed a heart disease prediction system using machine learning models like XGBoost, Random Forest, and Stacking Classifier, achieving up to 100% accuracy on the UCI dataset with effective preprocessing and evaluation.
- Designed a user-friendly Python GUI with Tkinter that takes user health inputs and provides real-time risk predictions using saved ML models, making it accessible for both healthcare professionals and general users.

Smart Home Security System using ESP32-CAM 02/2025 – 05/2025

- Built a smart surveillance system using ESP32-CAM, ultrasonic sensors, and servo motors for directional object tracking.
- Implemented real-time face detection and automated Telegram bot using Python and OpenCV.
- Designed for modularity and scalability with future support for face recognition and cloud integration.

Climate Forecasting using Machine Learning

- Developed a temperature prediction system using historical data, applying EDA, PCA and feature engineering (lag/time-based). compared models including Linear Regression, Decision Tree, Random Forest, and LSTM.
- Achieved optimal performance with Random Forest demonstrating strong predictive capability using Python and Scikit-learn.

Certifications

- Apna College : Data Structures and Algorithms (C++)
- Udemy: Python Pro Bootcamp Programming
- Udemy : Full Stack Development