Punam Thakur

Phone: +91 8827585501| Email: punamthakur2022@vitbhopal.ac.in | https://github.com/PUNAM1357THAKUR

Education

VIT Bhopal University — **Bhopal, Madhya Pradesh**
BTech ECE (AI and Cybernetics) — Expected June 2026
Cumulative GPA: **9.03**/10

12th Standard
Govt. Girls Higher Secondary School — **Jobat Alirajpur MP**
MP Board Cumulative percentage: **90.6%** — May 2022

10th Standard
Govt. Girls Higher Secondary School — **Jobat Alirajpur MP**
MP Board Cumulative percentage: **88%** — May 2020

Technical Skills and Tools

SQL, C++, Embedded C, Embedded Systems, LTspice, Tinkercad, Wokwi, Keil

Projects

Sign Language to speech conversion System — **Feb 2024 - May 2024**

- Description: Designed a smart glove that interprets predefined hand gestures by utilizing flex sensors, which detect the bending of fingers. The glove transmits the captured gesture data via Bluetooth, enabling real-time conversion into speech. This project strengthened skills in Embedded C programming, Arduino-based development, and the creation of accessible technology solutions for communication.
- Technology: Arduino IDE, C++.
- Role: Hardware integration and Code the system.
- Link: https://github.com/PUNAM1357THAKUR/Sign-Language-To-Speech-Conversion-System

Home Automation System — **Jan 2025 – Mar 2025**

- Embedded Systems– Developed a flexible smart home system that integrates temperature, ultrasonic, and LDR sensors with an ESP32 microcontroller. The system intelligently adjusts the environment in real time, achieving 80% accuracy in maintaining optimal conditions based on sensor data. It also allows remote control of appliances.
- Technologies: ESP32, Ultrasonic, LDR, Temperature Sensor, Fan, C++.
- Role: Embedded logic design, sensor fusion, and integration
- Link: https://github.com/PUNAM1357THAKUR/Smart-Home-Automation/tree/main

The Rider's co-pilot: An intelligent assistant for smarter riding — **Aug 2025 - Ongoing**

- Description: This project is Raspberry Pi-based smart safety system for motorcycles. It automatically verifies rider safety and prevents ignition if any unsafe condition is detected. The system uses a wireless link to check three critical factors Helmet Usage -Using IR sensor, Alcohol & Breath Analysis-Using MQ3 and Co2 Sensor, Drowsiness Detection- OpenCV
- Technology: C++, OpenCV, Raspberry Pi, IOT
- Role: Hardware integration and Code the system.

Experience

Embedded System Design Internship-Maven Silicon — **Jan 2025-Mar 2025**

- Developed embedded firmware and hardware interfacing for a home automation project.
- Improved skill level in microcontroller-based system design and embedded programming.
- Link- https://drive.google.com/file/d/13VzNlHwmC7YB2Sn5zKaNjKI3vowemfgS/view?usp=sharing

Extracurricular Activities

- Participated in Techfest IIT Bombay's Workshop on Electric Vehicles (Sept 2023).
- Volunteered for attending the ANRF-sponsored National Symposium on Innovations in Intelligent Systems at (Feb 2024).
- Worked as a team member in the ROBOX event at AdVITya 24.

Achievements

- Awarded with Dreamed STAR Scholarship from VIT Bhopal.
- Secured first position in district merit in class 12th.

Additional Information

Languages: English, Hindi
Hobbies: Poetry