Ayush Dhruv
B.Tech
Electronics and Communication Enginnering
Pandit Deendayal Energy University

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EDUCATION

· **Pandit Deendayal Energy University, Gujarat** *2022-2026*
· *B.Tech in Electronics and Communication Enginnering* CGPA/Percentage: 8.64
· *{With Minor Specialization in Internet of Things}*

· **Nelson's International School , Gujarat** *2022*
· *Gujarat Secondary and Higher Secondary Education Board* CGPA/Percentage: 64%
· *Senior Secondary – 11th and 12h*

· **Nelson's Higher Secondary School, Gujarat** *2020*
· *Gujarat Secondary and Higher Secondary Education Board* CGPA/Percentage: 65%
· *Secondary – 9th and 10th*

EXPERIENCE / INTERNSHIP

Satyakam Foundation *June 30 – July 15, 2023*
Volunteer Teacher *Ahmedabad,Gujarat*

– Taught children from financially disadvantaged backgrounds.
– Provided educational support to help bridge gaps in their learning.

Sahana Systems Limited *June 10 – July 10, 2024*
Ahmedabad,Gujarat

Intern
– Completed a one-month internship focusing on iot .
– Gained experience .

PERSONAL PROJECTS

- **Autonomous Self-Driving Car** *November 8, 2023*

Developed an autonomous self-driving car using Arduino.
– Tools & technologies used: Arduino, Ultrasonic Sensors, Motor Driver (L293D), Servo Motor
· Designed and implemented a system where the car navigates obstacles autonomously by using ultrasonic sensors to detect distance and adjust its path. Successfully achieved obstacle avoidance and continuous movement without manual control.

- **RFID RC522 Attendance System** *September 12, 2024*

Built an RFID-based attendance system using ESP32 and RC522.
– Tools & technologies used: ESP32, RFID RC522 Module, LEDs, Buzzer
– The system can identify and differentiate between valid and invalid RFID tags. Correct cards trigger a green LED and a short buzzer sound, while wrong cards trigger a red LED and a longer buzzer sound. Successfully integrated RFID authentication for a simplified attendance system.

- **Autonomous River-Cleaning Robot** *October 5,2024*

Developed an autonomous river-cleaning robot using Pixhawk and GPS module.
– Tools & technologies used: Pixhawk, GPS Module, Telemetry, Motors
The robot autonomously navigates a water surface while collecting floating waste. GPS and telemetry allow for real-time tracking and speed monitoring, ensuring efficient coverage and waste collection. Successfully achieved autonomous operation with real-time monitoring.

TECHNICAL SKILLS AND INTERESTS

Programming Languages: Python ,C , Verilog, Embedded C
Developer Tools: Visual Studio Code , Ardunio IDE
Frameworks: Blynk IoT Platform, Proteus (for simulation)
Cloud/Databases: Blynk IoT Cloud, Firebase (for IoT data storage),

Coursework: Microcontroller Programming, Digital Logic Design, Embedded Systems, IoT Systems, Robotics, Sensor Networks
Areas of Interest: Embedded Systems, IoT, Robotics, Automation, Sensor Networks, AI in Autonomous Vehicles

POSITIONS OF RESPONSIBILITY

- **Volunteer**, Radio Day Event — *February 13, 2023*

ACHIEVEMENTS

- ***Finalist - RoboFest 4.0*** — *January 24,2025*
  Received ₹2,00,000 from the government to develop a prototype.
- ***Winner - Smart India Hackathon (SIH) 2024*** — *December 15,2024*
  Worked on the problem statement: "Rapid colorimetric and artificial intelligence-based methods for determining the microbial quality of raw milk, processed milk, and milk products." Developed an innovative solution integrating AI and colorimetric techniques to enhance milk quality assessment.

CERTIFICATES

- ***Radio Day*** — *February 13, 2023*
  Certificate of Volunteering
- ***Sahana Systems Limited*** — *July 10,2024*
  One-month Internship
- ***Satyakam Foundation (Trust)*** — *July 15,2023*
  CSSI Internship
- ***Smart India Hackathon (SIH) 2024*** — *December 11-15,2024*
  Winner Certificate
- ***RoboFest 4.0*** — *January 21-24,2025*
  Finalist Certificate