Sharvil Hirenkumar Patel

sharvilpatel148@gmail.com 9737225273
github.com/P-sharvil04 linkedin.com/in/sharvil-patel-781259247

Skills

Languages: C, C++, HTML, CSS, JavaScript, Python, MySQL, Django, Flutter, PHP

Technologies & Tools: Android Studio, VSCode, Arduino IDE, Sublime

Education

GLS University January 2025
MSc IT ***SGPA: 6.7 / 10***

July 2021 – May 2024
BSc IT ***CGPA: 7.50 / 10***

Class 12 – Divine Life School (GHSEB Commerce) May 2021
Percentage: 74%

Class 10 – Divine Life School (GSEB) March 2019
Percentage: 75%

Project Work

- **Arduino-Based Drone (2023)**
  Tech Stack: C++, Arduino UNO, MPU6050, ESC, RF Module
  - Designed and programmed a quadcopter using Arduino UNO and MPU6050 to achieve autonomous flight with 70% drift reduction.
  - Implemented real-time flight stabilization using C++ and PID control tuned across multiple test flights.
  - Synchronized ESCs with calibrated motor signals, ensuring balanced thrust and reduced unbalanced lift by 60%.
  - Enabled wireless remote control via RF module, improving manual control accuracy by 40%.
- **Gesture-Controlled Laptop Interface (2024)**
  Tech Stack: Python, Flask, Mediapipe, OpenCV, PyAutoGUI, HTML, CSS, Bootstrap
  - Engineered a computer vision system for hand gesture-based laptop control, replacing traditional input methods.
  - Built gesture recognition pipeline with Mediapipe and OpenCV, achieving 95% detection accuracy and <200ms latency.
  - Automated system-level commands (e.g., window switch, desktop view) using PyAutoGUI to improve accessibility by 80%.
  - Deployed Flask backend to process live webcam streams and route control signals in real time.
  - Designed an intuitive Bootstrap interface for gesture onboarding and visual feedback.
- **VehicleEye – IoT-Based GPS Tracking and Engine Control (2025)**
  Tech Stack: Arduino UNO, GPS NEO-6M, SIM800L, Im 2596, Relay Module, C++, Flutter, PHP, MySQL, HTML, CSS
  - Built an end-to-end IoT solution integrating Arduino hardware and mobile interface for vehicle tracking and control.
  - Interfaced GPS and GSM modules to transmit live coordinates (refresh rate <5s) to a PHP/MySQL backend.
  - Enabled remote engine ON/OFF via authenticated relay switching, reducing unauthorized use risk.
  - Developed a Flutter app with Google Maps for tracking and control, alongside user profile management.
  - Designed a responsive web admin dashboard for user account control and system activity monitoring.

Positions of Responsibility

- **Team Lead** – Final Year Project (2024)

- **Team Lead** – Capstone Project (2025)