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

**Class 12th Divine Life School (GHSEB Commerce)** May 2021
***Percentage: 74***

**Class 10th Divine Life School (GSEB)** March 2019
***Percentage: 75***

## Project Work

- **Arduino-Based Drone (2023):**
  **Technologies:** C/C++ (Arduino)
  Designed and developed a quadcopter using Arduino UNO, MPU6050 gyro sensor, and a wireless remote control. Programmed flight control and stabilization algorithms in C/C++ using the Arduino IDE. Integrated ESCs for motor control and implemented real-time sensor data processing for stable flight.

- **Controlling Laptop Using Hand Gestures (2024):**
  **Technologies:** Python, Flask, Mediapipe, PyAutoGUI, OpenCV, HTML, CSS, Bootstrap.

  Developed an innovative computer vision system enabling users to control laptops using hand gestures, replacing traditional input methods like keyboard and mouse. Leveraged Mediapipe for real-time hand tracking, integrated with PyAutoGUI to simulate user actions such as swipe, scroll, window navigation, and app control. Designed an interactive web interface using HTML, CSS, and Bootstrap to demonstrate gesture commands and system feedback. Built and deployed the application backend using Flask, facilitating seamless interaction between camera input and gesture-based device control.

  **Key Features:**
  - Recognized gestures for system commands (e.g., Task Manager, Desktop View, Window Switching)
  - Real-time camera-based gesture detection using Mediapipe
  - Executed actions on laptop through PyAutoGUI
  - User-friendly front-end showcasing gesture capabilities

- **VehicleEye – Real-Time GPS Tracking and Engine Control System (2025):**
  **Technologies:** Arduino UNO, GPS NEO-6M, SIM800L, Relay Module, C/C++ (Arduino), Flutter, PHP, MySQL, HTML, CSS, Bootstrap.

  Designed and developed a complete vehicle tracking and control system combining IoT hardware, a Flutter mobile app, and a web-based admin dashboard. Programmed the Arduino UNO to collect GPS data and send it via SIM800L to a backend server, while also controlling the engine using a relay module. Created a mobile app for users to track live location, control engine, and manage profiles. Developed a web admin panel for managing user accounts and monitoring activity.

  **Key Features:** - Real-time GPS tracking using Arduino and GPS NEO-6M
  - Engine ON/OFF control via relay through mobile app
  - Flutter mobile app with Google Maps, manage profile , and engine control
  - Backend built with PHP and MySQL for storing and retrieving location/user data
  - Admin dashboard (HTML/CSS/Bootstrap + PHP) for user management and system control
  - Full Arduino firmware developed for sensor reading, GSM communication, and engine logic

## Positions Of Responsibility

- **Team Lead**
  - Final year Project (2024)

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