



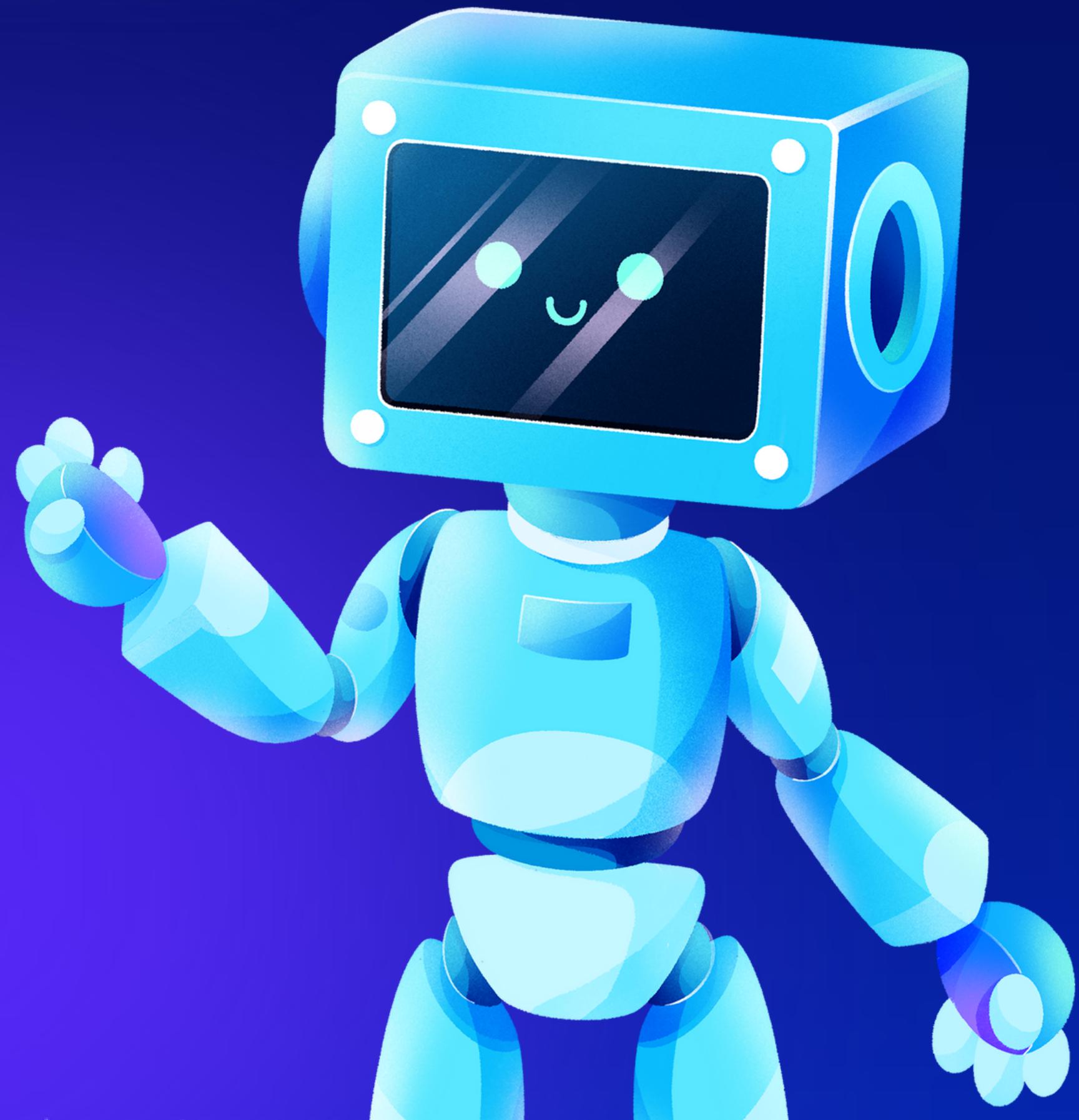
ARTIFICIAL INTELLIGENCE

PROJECT

AUTOMATION OF THE GAME “HILL CLIMB RACING”

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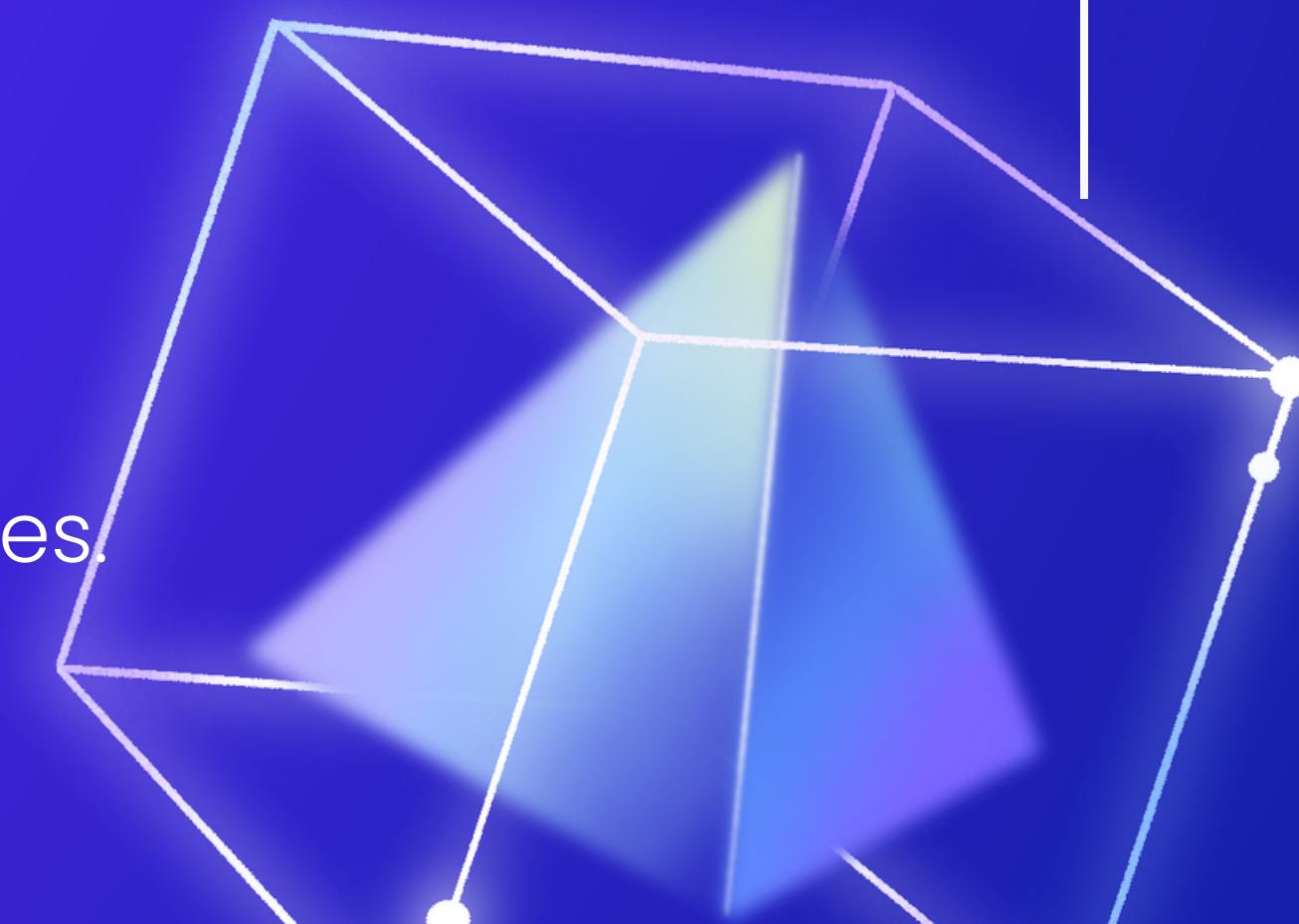
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TECH STACK USED

1. **OpenCV (cv2)**: Used for handling video capture, image processing, and drawing landmarks on the frames.
2. **Mediapipe (mediapipe)**: Specifically, the mp.solutions.hands module for hand detection and landmark recognition.
3. **Pynput (pynput)**: Employed for controlling keyboard inputs, specifically for simulating key presses and releases.



HOW DOES IT WORK ?



Hand Gesture Detection

- Utilizes the MediaPipe library to detect and track hand landmarks from a live video feed captured by the computer's camera.

HOW DOES IT WORK ?



Gesture Interpretation

- Interprets the positions of specific landmarks on the hand to determine if fingers are open or closed, using the relative coordinates of landmarks to identify finger states.

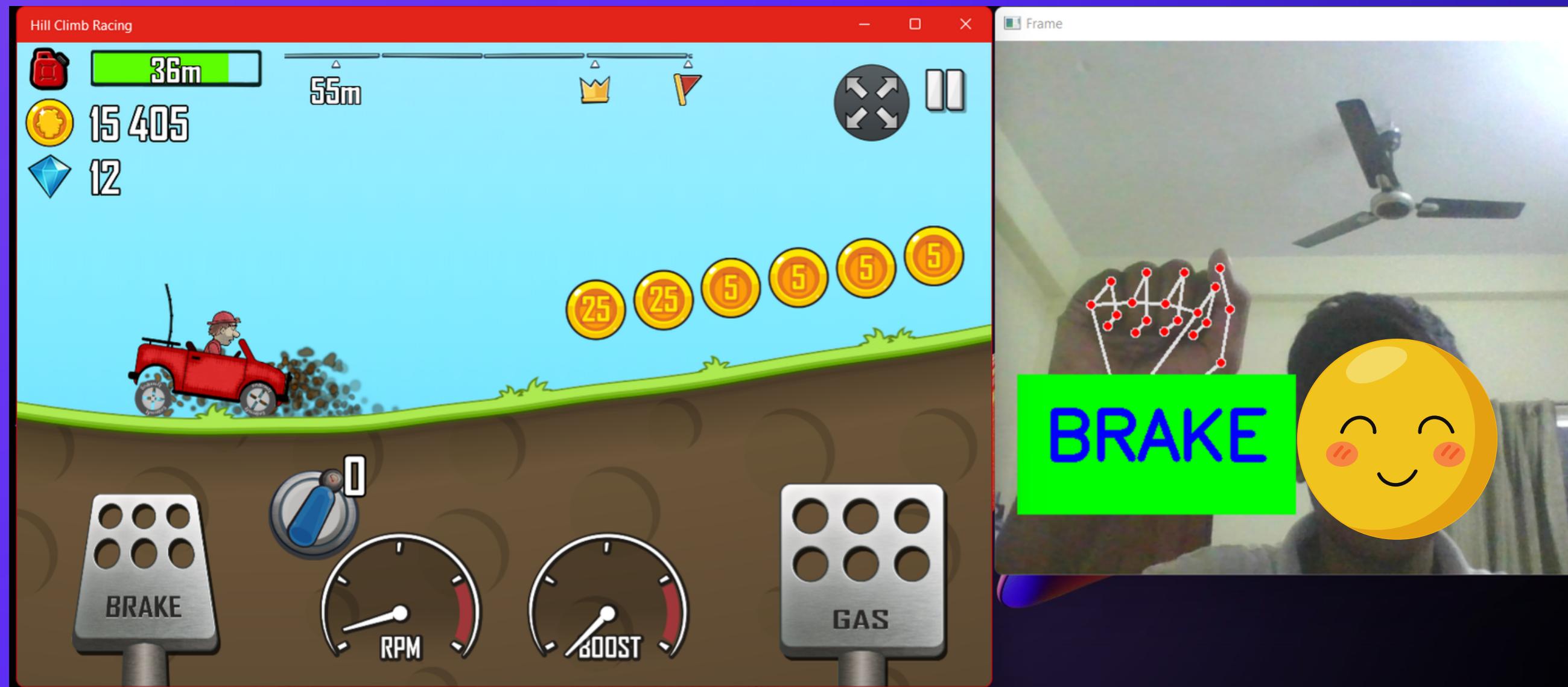
HOW DOES IT WORK ?



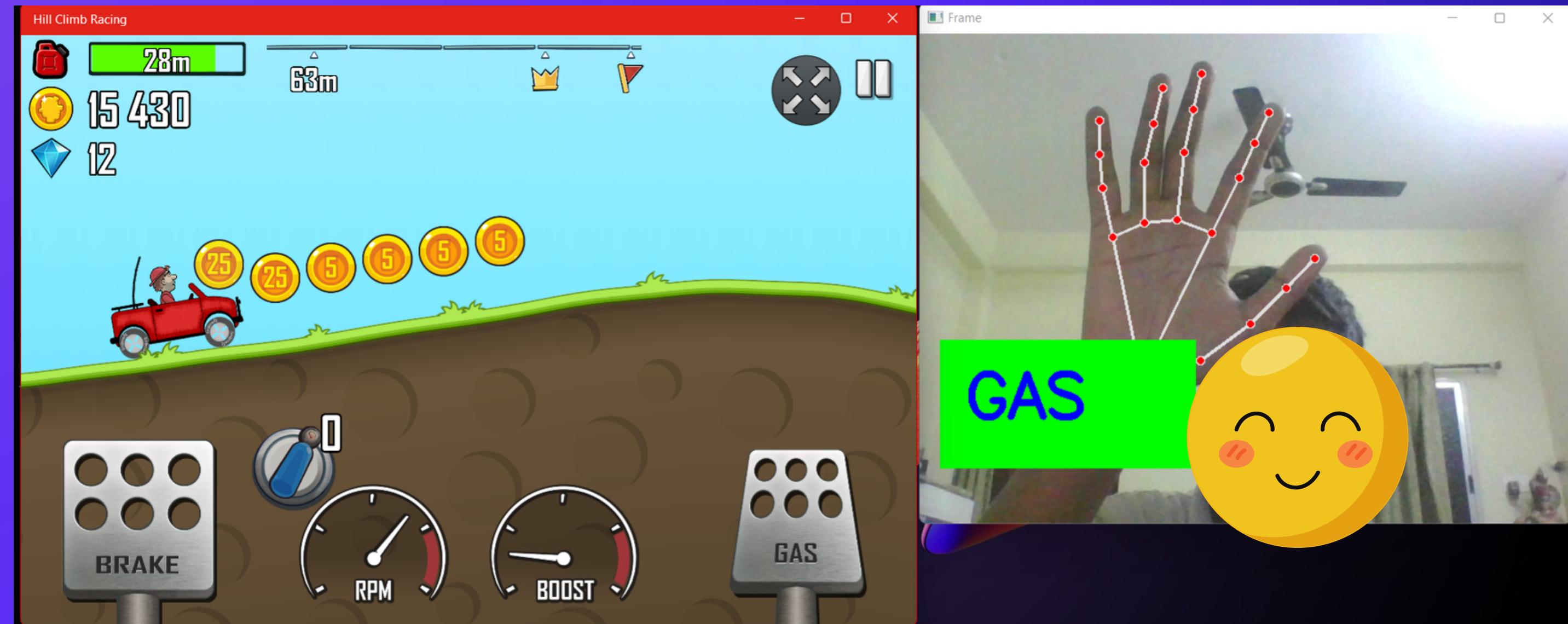
Game Control via Gestures

- Maps the detected finger states to game controls (acceleration and braking) by simulating key presses based on the finger status, allowing the user to control the game Hill Climb Racing through hand gestures captured by the camera.

Palms closed gesture terms it as brake



Palms open gesture terms it as Gas



PROJECT LINKS

PROJECT LINK



THANK YOU!

