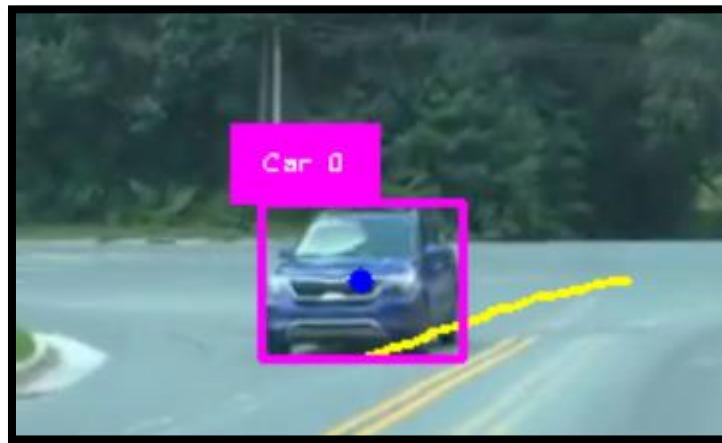# **OBSERVATIONS FOR DIFFERENT VIDEOS:**
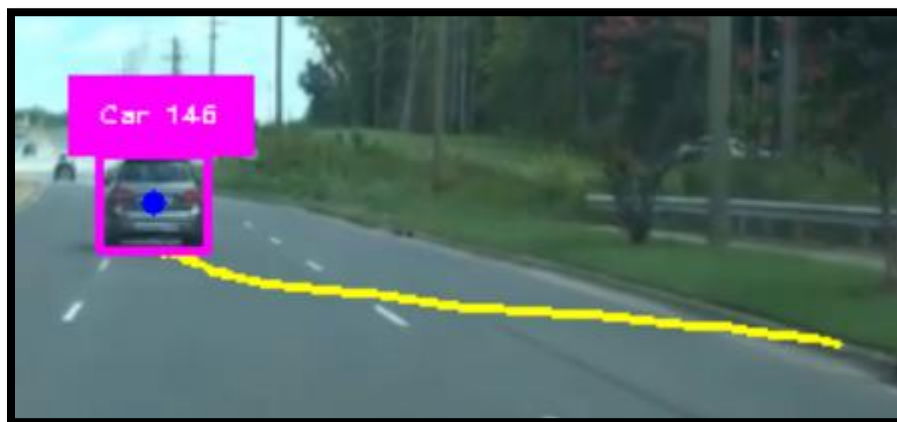
Video4.mp4
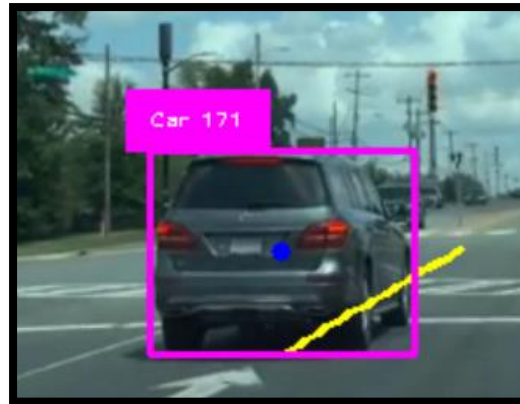

Correct path for incoming car from the front.

Correct path for side profile of the incoming car.

Correct path for the car that has just turned.

Sidra Tariq

PROBLEMS:

1) **Rear to front detection.**

Potential Cause:

The trail is still shown from rear to front instead of the path it has travelled, this can be because the car from which it is recorded is moving faster than the shown car, so the cars at the front appear stationary.

As can be seen with the stationary car,

This means, that the rear to front trail tracking is not because of any error but it is due to the difference in the movement speed of the camera as compared to the car. Since the Frame (that is recording) moves at the higher speed than the car moving ahead, the pixels of the car appear to have moved back instead of the front, causing the trail to appear from rear to front, as if the car is moving back, pictorially:

Sidra Tariq
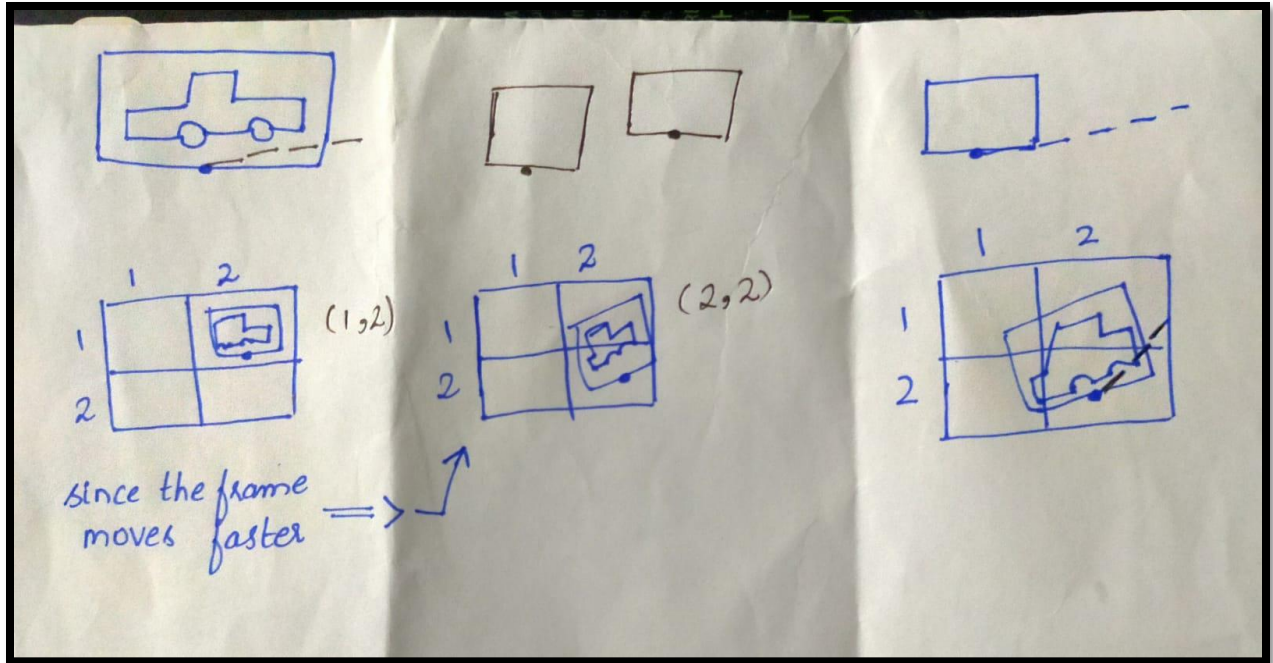
For example shows correctly for this car:
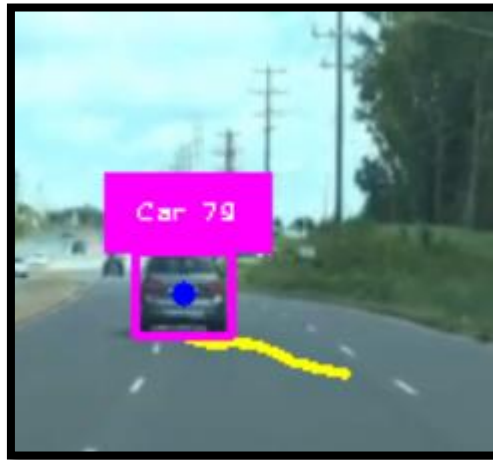
2) <u>**the trail appears in front of the car, but does not continue after the car moves:**</u>
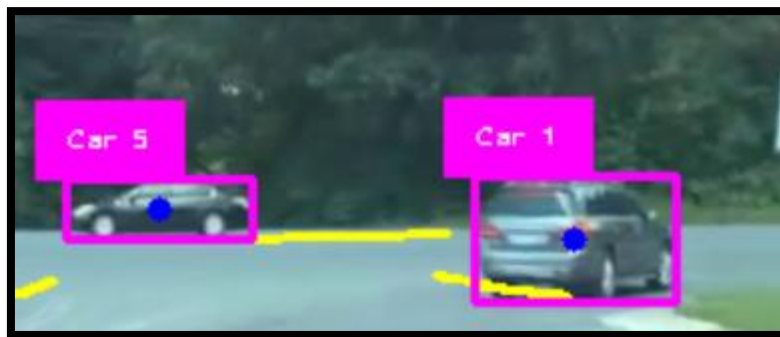
Sidra Tariq
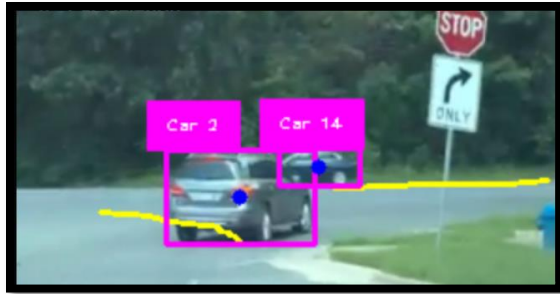
Potential Causes:

1. **Delayed Center Point Calculation**.
2. **Frame Skipping**.
3. **Path Initialization**.
4. **Incorrect Update of Paths**.

Correction in the code:

1. **Removed frame skipping** to ensure smoother trail updates.
2. **Changed path initialization** to only start with one point (`[(cx3, cy3)]`).
3. **Updated path management** to append points correctly and ensure path length doesn't exceed the maximum.
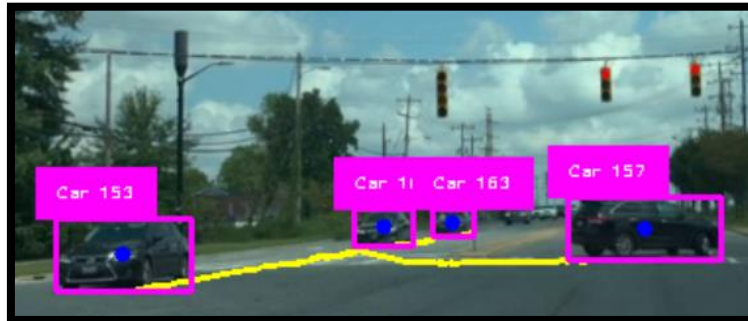
CORRECTED O/P:

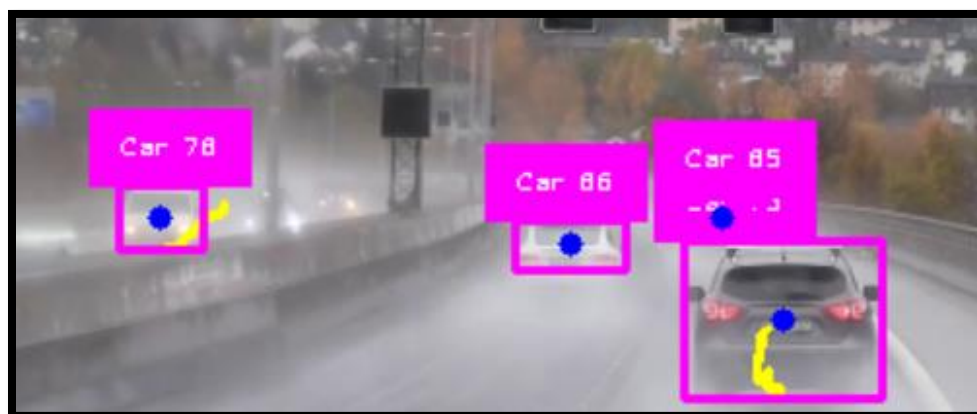3) **Close Multiple bounding box cause obstacles in detection.**

Sidra Tariq

IMPROVEMENT:

(The conjoined lines will be removed when the max path length is decreased)

CLIP_1.mp4

PLUS POINT:

Works under stormy conditions too.