Finding Lane Lines on the Road

Objective:

The goals is to find and mark the lane lines on the road using computer vision in order to be used in ADAS features like keep lane assist

Reflection

1. Pipeline

My pipeline consisted of 5 steps:

1-I converted the images to grayscale using grayscale()

2-I blurred the image in order to decrease the edges using Gaussian filter gaussian_blur()

3-I applied Canny filter to detect edges using canny()

4-I defined the region of interest because what is matter is the lane lines in front of the car using region_of_interest()

5-I applied Hough transform to detect the lines consisted by the edges in the previous stage using hough_lines()

In order to draw a single line on the left and right lanes, I called draw_lines() function lines in the image after Hough transform and zeros with the size of the image

2. Potential shortcomings with your current pipeline

Having a lot of cars in white beside my car may be detected as horizontal lines.

3. Possible improvements to your pipeline

I need to filter all horizontal lines and make sure that lines are not consisted on cars beside me