Finding Lane Lines on the Road

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The goals / steps of this project are the following:

- Make a pipeline that finds lane lines on the road

- Reflect on your work in a written report

Reflection

1. Describe my pipeline.

My pipeline consisted of 5 steps：

1. get gray image from original image

2. define a kernel size and apply Gaussian smoothing in gray image

3. define our parameters for Canny detection, do canny detection from gray image filtered by Gauss.

4. define a four sided polygon to mask, and get masked edges

5. define Hough transform parameters, make a blank the same size as our image to draw on

6. Run Hough on edge masked_edges, and output line_image

7. Draw the lines on the original image

In order to draw a single line on the left and right lanes, I modified the draw_lines() function by :

Devide all lines into two group, one group is left, another is right, filter out the line that has a big slope change

2. Identify potential shortcomings with your current pipeline

The straight line drawn is not full enough, there are burrs.

When the color of the lane line is different, the lines drawn are not correct.

3. Suggest possible improvements to your pipeline

Improved filtering algorithm for line drawing