**Finding Lane Lines on the Road**

**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 the pipeline and draw\_lines() funciton**

Pipeline:

(1) Use white and yellow masks to choose all white and yellow pixels in the

image to become white. Other pixels becomes black.

(2) Transfer image to gray.

(3) Use gaussian blur filter to delete noise in image.

(4) Use region\_of\_interest function to choose the lanes area in the image.

(5) Use hough\_lines method to print lanes in the image.

draw\_lines() function:

I calculate the slope k of each line in lines to decide which line is the left

line or right line. Then calculate the end points in the lane lines. If the end

points are in the desired area. Then I am sure they are true lane lines and

print them in the image.

1. **Identify potential shortcomings with your current pipeline**

One shortcoming is I use two draw\_lines() functions to normal mp4 file and

challenge mp4 file since their image size are different. Another one is in

challenge.mp4, the straight lines cannot follow the curving lane lines

perfectly.

1. **Suggest possible improvements to your pipeline**

I can write a more general draw\_lines() function to cover all different size

mp4 file to solve the first shortcoming. For the second one, I can use curve to

present lane lines instead of straight lines.