# Finding Lane Lines on the Road

## Writeup Template

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**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

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## Reflection

## 1. Describe your pipeline. As part of the description, explain how you modified the draw_lines() function.

My pipeline consisted of 5 steps. First, I converted the images to grayscale, then I applied gaussian blur with a kernel size of 5

Then the canny function is applied on the blurred image.

Then the region of interest function was applied with region as (250,330) and (590,330)

Masked Edges were calculated with the region of interest function which was then put into Hough Lines to get the hough lines

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

Calculating the slope of the x and y points of every line and also by calculating the intercept of every line .

All the negative slopes are put into a negative slope array

All the positive slopes are put into a positive slope array

All the negative intercepts are put into a negative intercepts array

All the positive intercepts are put into a positive intercepts array

Then take the mean for positive and negative slopes and positive and negative intercepts

Then calculate the max and min of the positive and negative slopes and plot on the image  .

If you'd like to include images to show how the pipeline works, here is how to include an image:

## 2. Identify potential shortcomings with your current pipeline

The pipeline was not able to run the optional challenge as the lanes are not straight but curved .

## 3. Suggest possible improvements to your pipeline

A possible way to improve the pipeline to identify curved lanes is to use polynomial fit for the points .