

Finding Lane Lines on the Road

Writeup

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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 the work in a written report
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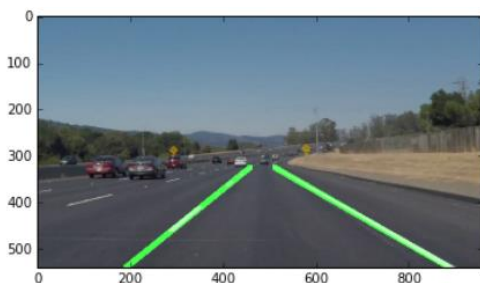
Reflection

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

My pipeline contains changeable parameters like ρ , θ , and kernel size. Finding suitable values for these parameters was challenging.

In order to draw a single line on the left and right lanes, I modified the `draw_lines()` function by separating the line segments into left and right lines. Then for each line I calculated the average slope and intercept. Since all line segments use the `ymin` value I set the height of image as `ymax`. Then for both the left and right lines I calculated `xmin` and `xmax` values using slope, intercept, `ymin` and `ymax`. Then I drew a line through `(xmin,ymin)` and `(xmax,ymax)`

Images to show how the pipeline works:



2. Identify potential shortcomings with your current pipeline

As most of these parameters can't be generalized it has a high probability of failing under diverse set of road conditions or curved roads.

Even though the code properly identifies and marks lane lines, the lines shutter in a video sometimes

3. Suggest possible improvements to your pipeline

A possible improvement would be to tweak the parameters to reduce the shuttering lines. I would look upon that in future.

Another potential improvement could be to make it adapt to both curved and straight lanes. I have to do further studies to implement it.