



PROJECT

Finding Lane Lines on the Road

A part of the Self Driving Car Engineer Nanodegree Program

PROJECT REVIEW

NOTES

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Requires Changes

1 SPECIFICATION REQUIRES CHANGES

Lane Finding Pipeline

The output video is an annotated version of the input video.

Well Done for creating the pipeline that allows you to train and test the algorithm.

In a rough sense, the left and right lane lines are accurately annotated throughout almost all of the video. Annotations can be segmented or solid lines

For some figures, the lines are not centered around the lane lines. Examine the code it seems that the parameter setting for the "HoughLinesP" function, "threshold", "min_line_len", "max_line_gap" are too low, then what would be considered optimal.

Please examine the parameters by modifying them separately. That will allow you to identify how each parameter affects the lane line. For example,

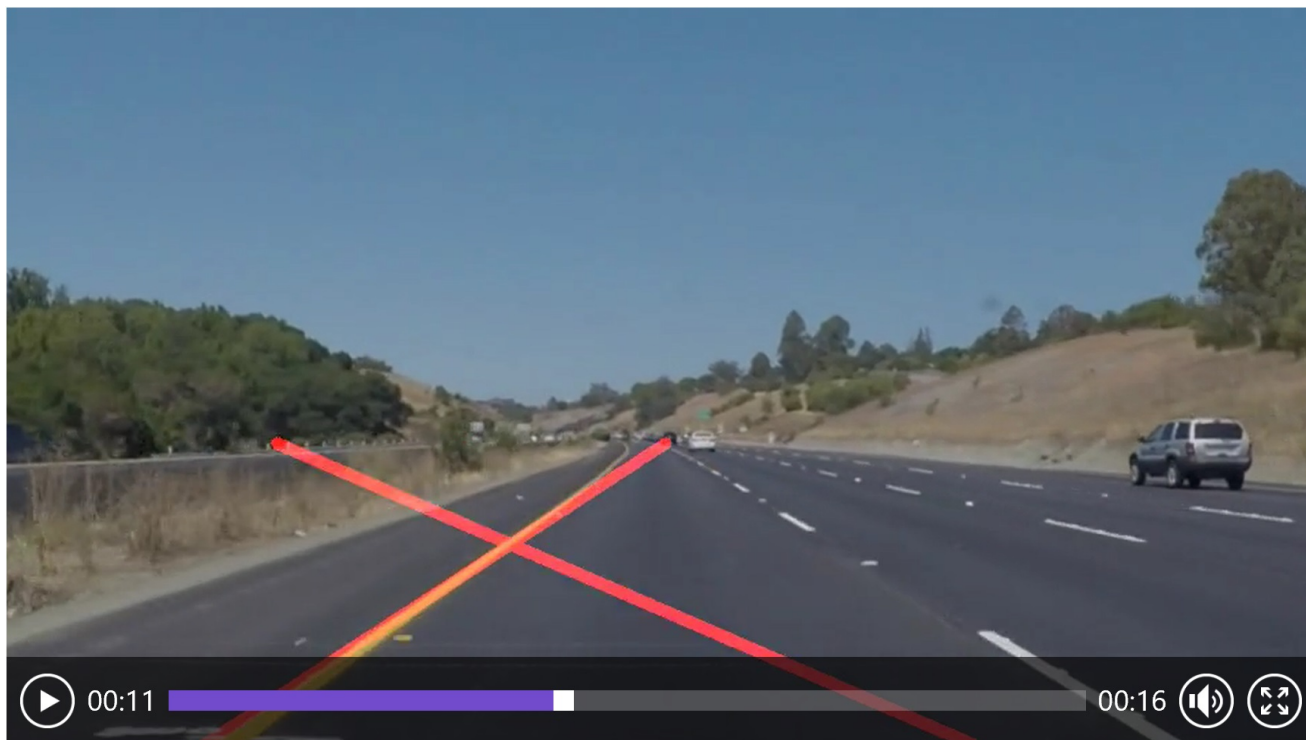
- 'max_line_gap' defined the maximum distance between segments that will be connected to a single line.
- 'min_line_len' defined the minimum length of a line that will be created.

Increasing these parameters will create smoother and longer lines

- "threshold" defined the minimum number of intersections in a given grid cell that are required to choose a line.

Increasing this parameter, the filter will choose longer lines and ignore short lines.

http://docs.opencv.org/3.0-beta/doc/py_tutorials/py_imgproc/py_houghlines/py_houghlines.html



Visually, the left and right lane lines are accurately annotated by solid lines throughout most of the video.

I would like to point out here , that when the hough filter is optimized, even a simple draw_line function will work

```
for line in lines:
    for x1,y1,x2,y2 in line:
        cv2.line(img, (x1, y1), (x2, y2), color, thickness)
```

Reflection

Reflection describes the current pipeline, identifies its potential shortcomings and suggests possible improvements. There is no minimum length. Writing in English is preferred but you may use any language.

You are correct the algorithm is not perfect and you identify some important but common occasion where the algorithm will fail. Since the algorithm is "trained" on a very specific road and light conditions when these conditions change we can expect that the algorithm performance will deteriorate.

 RESUBMIT

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