UDACITY

Finding Lane Lines on the Road

A part of the Self Driving Car Engineer Nanodegree Program

PROJECT REVIEW
NOTES

SHARE YOUR ACCOMPLISHMENT! 🐦 📘

Meets Specifications

All in all I would like you to congratulate you for taking an amazing first step in this journey!! 👏 👏 👏

Required Files

The project submission includes all required files

Thanks for providing all the required files and naming the files as expected.

Lane Finding Pipeline

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

Great work! Your annotations are clearly visible in the videos

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

- There is a clear demarcation between the two lanes in the videos including the challenge video! You have taken a very good step towards lane detection and your pipeline reflects that :)
- For challenge video, I suggest to to experiment with HLS or HSV color space to detect white and yellow pixels in the image.
- There are ways to draw the lanes other then using slopes. For example, you can warp the image(bird eye view) and then assume that the left side contains the left lane pixels and right half of the image contains the pixels for right lanes. These pixels can be stored and polyfit method can be used to fit a line. polyfit method can also be used to fit a curve which would be helpful for the curving roads. The search area in the image for right and left lanes can be narrowed down after achieving some confidence about the location of lane pixels in the image. It helps in speeding up the process of detecting lanes.

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

- Left and right lanes annotated correctly by solid lines.
- Good job saving lanes from the previous frames in cases lanes are not detected at all in current frame.

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.

- Good job explaining your pipeline and discussing some shortcomings and improvements. In fourth project in this term, you will get a chance to use advance techniques like gradients and image warping to detect the lanes. :)
- This research paper http://airccj.org/CSCP/vol5/csit53211.pdf goes into how to detect curves and will also help in detecting faded lanes. It uses an extended version of hough lines algorithm to detect tangents to the curve which can help you detect the curve.

Student FAQ