

Finding Lane Lines on the Road

The Goal / Steps of this project are the following:

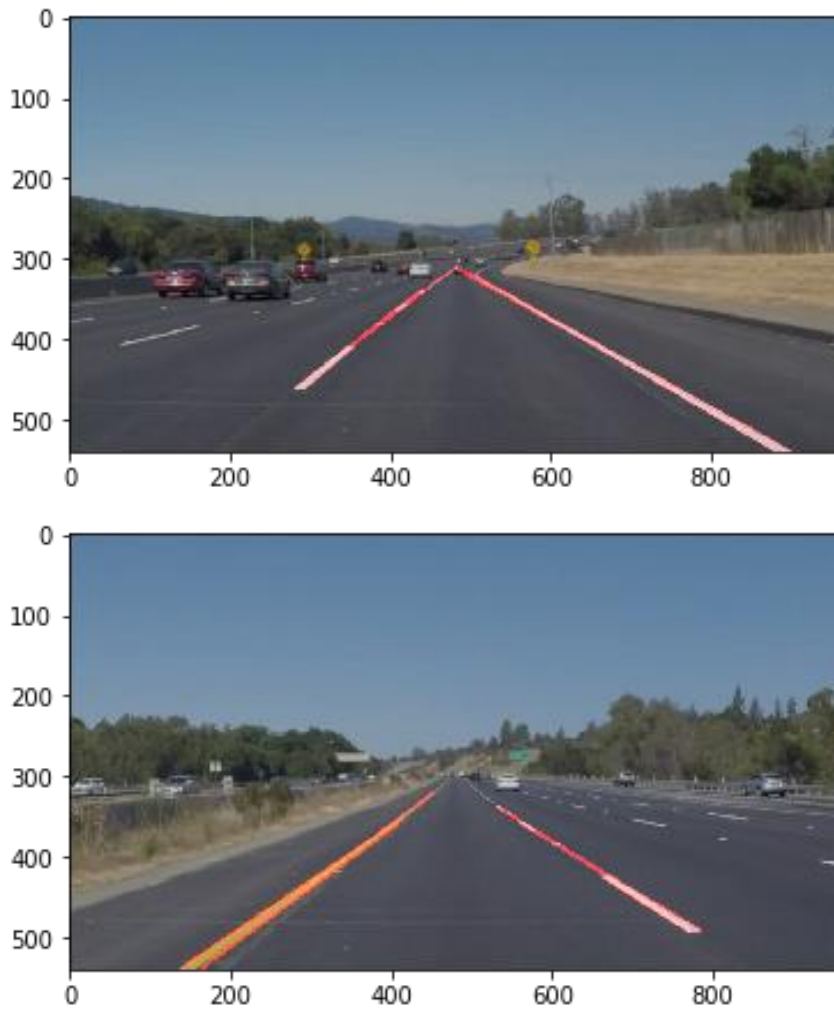
- Make a pipeline that finds lane lines on the road
- Reflect on your work in a written report

Reflection

-----DESCRIPTION-----

The pipeline consists of six steps represented by six different functions:

- **grayscale:** Returns a gray scaled version of the input image using **cv2.cvtColor** method.
- **gaussian_blur:** Applies a Gaussian blur to the provided image using **cv2.GaussianBlur** method.
- **canny:** Uses a canny transformation to find edges on the image using **cv2.Canny** method.
- **region_of_interest:** Eliminates parts of the image that are not interesting in regards to the line detection.
- **hough_lines:** Uses a Hough transformation to find the lines on the masked image using **cv2.HoughLinesP**. It also adjust a line to set of lines returned by the Hough transformation in order to have a clearer two lines representation of the roadlines.
- **weighted_img:** Merges the output of hough_lines with the original image to represent the lines on it.



Potential shortcomings/suggestions

- The lines shake a lot on the videos, a better way to average them should be possible.
- The line size should be improved.
- Bright points outside the lines were taking into account.