

[< Back to Intro to Self-Driving Cars](#)

# Traffic Light Classifier

## REVIEW

## CODE REVIEW

## HISTORY

### Meets Specifications

I have simply nothing to add. You have done a great job. Please keep up at that level!!!

### Notebook Questions



In the project notebook, all questions are answered. (There are two questions total.)

- ✓ You have explained how your feature(s) help you distinguish between the 3 classes of traffic light images.
- ✓ You have answered correctly question 2 and noted at least two reasons for misclassifications to your algorithm.
- ✓ Your notebook runs without errors

### Pre-processing



All input images (before they are classified) should be processed so that they are the same size.



All labels should be a one-hot encoded vector of length 3. Ex. 'yellow' becomes: [0, 1, 0].

- ✓ Your implementation is very good!
- ✗ You did not consider the case where the label is not expected!

```
def one_hot_encode(label):  
    """ this is easier to extend. just add values to the color_map """  
    color_map = ["red", "yellow", "green"]  
    one_hot = [0] * len(color_map)  
    try:  
        one_hot[color_map.index(label)] = 1  
    return one_hot  
    except:  
        raise TypeError('Please input red, yellow, or green. Not ', label)
```

## Create a brightness feature



Using HSV colorspace, extract a feature from a traffic light image that represents the level(s) of brightness in an image. This feature can help classify any traffic light image. A feature can be a list, array, or a single value.

Amazing work 🙌🙌🙌 one of the best I have reviewed. Not only for the results but for the clarity of the code too.!

## Classification Model



Using any created features, write a classification function that takes in a standardized RGB image and outputs whether a traffic light is red, yellow, or green as a one-hot encoded label.

✓ Great Work. You have created the required function.

## Model Evaluation



The model must have greater than 90% accuracy on the given test set.

Just perfect 100%





In the given test set, red traffic lights can never be mistakenly labeled as green.

 [DOWNLOAD PROJECT](#)

[RETURN TO PATH](#)

Rate this review



[Student FAQ](#)