



## Traffic Sign Classifier



## Project Submission

DUE  
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## Traffic Sign Classifier Project

In this project, you will use what you've learned about deep neural networks and convolutional neural networks to classify traffic signs. Specifically, you'll train a model to classify traffic signs from the [German Traffic Sign Dataset](#).

## Set Up Your Environment

### CarND Starter Kit

Install the car nanodegree starter kit if you have not already done so: [carnd starter kit](#)

### TensorFlow

If you have access to a GPU, you should follow the TensorFlow instructions for [installing TensorFlow with GPU support](#).



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### Amazon Web Services

Instead of a local GPU, you could use Amazon Web Services to launch an EC2 GPU instance. (This costs money.)

1. [Follow the Udacity instructions](#) to launch an EC2 GPU instance with the `udacity-carnd` AMI.
2. Complete the **Setup** instructions.

### Start the Project

1. [Download the dataset](#). This is a pickled dataset in which we've already resized the images to 32x32.
2. Clone the project and start the notebook.

```
git clone https://github.com/udacity/CarND-Traffic-Sign-Classifier-Project
cd CarND-Traffic-Sign-Classifier-Project
```

3. Launch the Jupyter notebook: `jupyter notebook Traffic_Sign_Classifier.ipynb`
4. Check out the [project rubric](#)
5. Follow the instructions in the notebook
6. Write your project report

### Submission

Before submitting, make sure your project covers all of the rubric points, which can be found [here](#).

When you are ready to submit your project, collect the following files and compress them into a single archive for upload. Alternatively, upload your files to github to link to the project repository:

- The `Traffic_Sign_Classifier.ipynb` notebook file with all questions answered and all code cells executed and displaying output.
- An HTML or PDF export of the project notebook with the name `report.html` or `report.pdf`.
- Any additional datasets or images used for the project that are not from the German Traffic Sign Dataset. *Please do not include the project data set provided in the `traffic-sign-data.zip` file.*
- Your writeup report as a markdown or pdf file

If you are unfamiliar with GitHub, Udacity has a brief [GitHub tutorial](#) to get you started. Udacity also provides a more detailed free [course on git and GitHub](#).

To learn about README files and Markdown, Udacity provides a free [course on READMEs](#), as well.