Exercise 2: CARLA Dataset

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1 Applied Transformations

According to the exercise sheet we applied the following transformations (they are all adjustable):

- Change in contrast, brightness and tone
- Gaussian Blur
- Gaussian Noise
- Salt and Pepper Noise
- Random Region Dropout
- Normalization

2 GUI Controls

We implemented a simple GUI based on the python package matplotlib.pyplot[1]. After executing the extract.py file, the controls are as listed below.

- Key: 'Right' : Move one image forth
- Key: 'Left' : Move one image back
- Key: 'r' : Choose a random image
- To quit the viewer, simply close the display window

The viewer features a combined display of both, the original image as well as the transformed image. Additionally, information about the current file, image index, high-level-command and steering angle are provided.

[1] We had some trouble with openCV, thus we worked with pyplot.

3 Screenshots

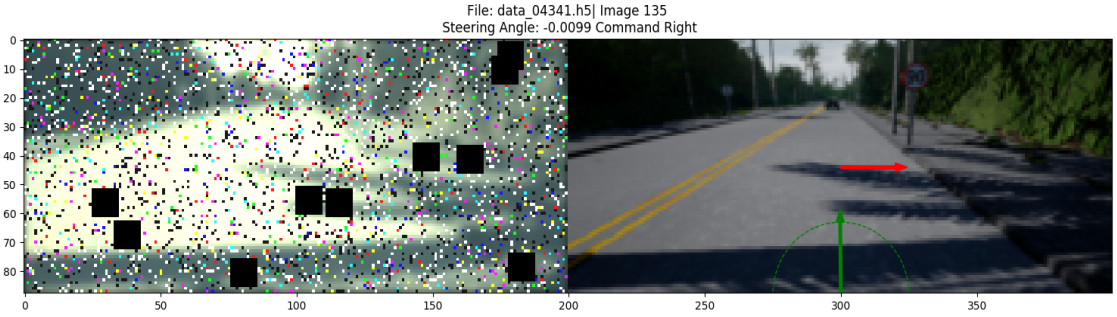

Figure 1: High-Level-Command: **Right**

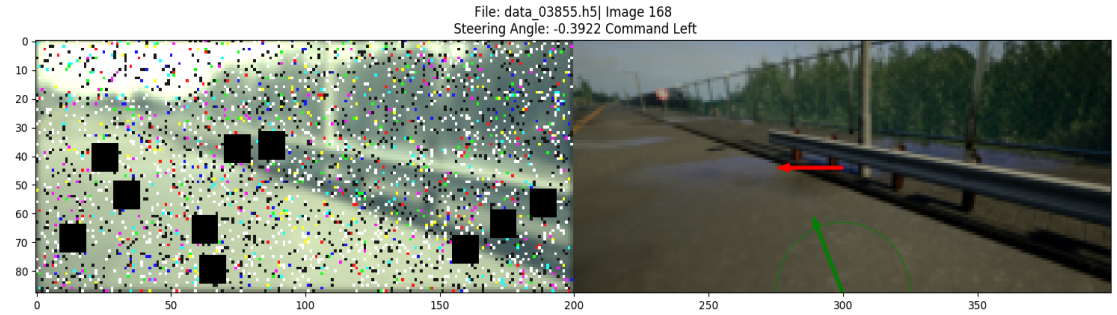

Figure 2: High-Level-Command: **Left**

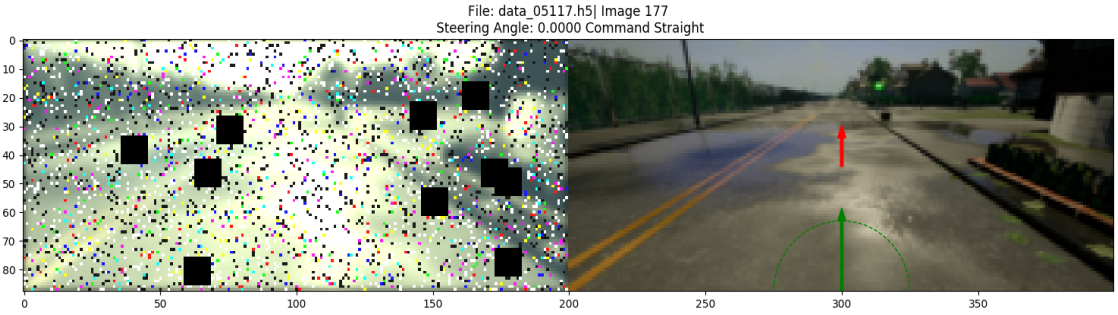

Figure 3: High-Level-Command: **Straight**

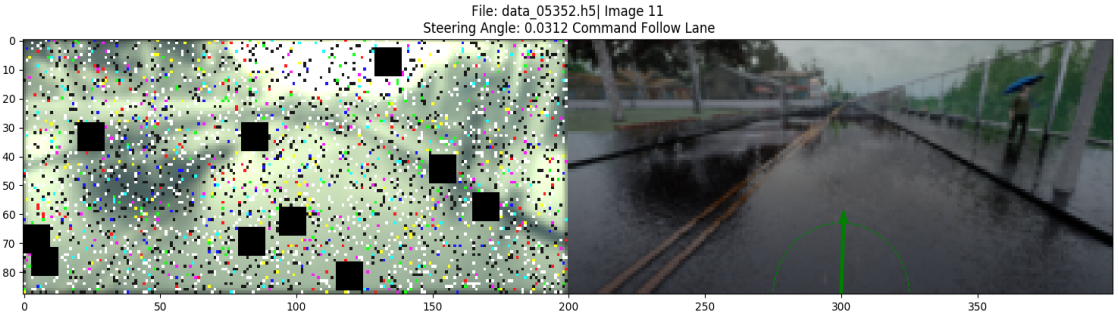

Figure 4: High-Level-Command: **Follow Lane**