

Laboratory work №5. Deep neural networks for image semantic segmentation

The task is to build the deep neural network for road images semantic segmentation. There is 13 classes of objects to recognize.

1. Choose the implementation of SegNet or any segmentation network or write your own
<https://github.com/mrgloom/awesome-semantic-segmentation>

2. Train SegNet on CamVid dataset.

3. Classes are:

Sky = [128,128,128]

Building = [128,0,0]

Pole = [192,192,128]

Road_marking = [255,69,0]

Road = [128,64,128]

Pavement = [60,40,222]

Tree = [128,128,0]

SignSymbol = [192,128,128]

Fence = [64,64,128]

Car = [64,0,128]

Pedestrian = [64,64,0]

Bicyclist = [0,128,192]

Unlabelled = [0,0,0]

4. data_shape = 360*480

Please find the suggested dataset here <https://yadi.sk/d/n14y7DkM3WfXgn>. Feel free to use any programming language, but Python is recommended.