Interactive web application

* Upload content image (and style image)
* Semantic segmentation
* Style transfer
* Combine for output

Semantic segmentation:

<https://pytorch.org/docs/stable/torchvision/models.html#semantic-segmentation>

<https://www.learnopencv.com/pytorch-for-beginners-semantic-segmentation-using-torchvision/>

Neural transfer:

<https://pytorch.org/tutorials/advanced/neural_style_tutorial.html>

<https://medium.com/datadriveninvestor/style-in-computer-vision-neural-style-transfer-c44da727f1c4>

Deeplab v3: <https://arxiv.org/pdf/1706.05587.pdf>

Refine Net:

<http://www.milanton.de/files/arxiv2016/arxiv2016-guosheng-refinenet.pdf>

Light Weight RefineNet:

<https://github.com/DrSleep/light-weight-refinenet>

* On persons only (7 classes): <https://github.com/DrSleep/light-weight-refinenet/blob/master/examples/notebooks/PersonPart.ipynb>

LightNet++:

<https://github.com/ansleliu/LightNetPlusPlus>

Structured Knowledge Distillation for Dense Prediction:

paper

<https://arxiv.org/pdf/1903.04197.pdf>

code

<https://github.com/irfanICMLL/structure_knowledge_distillation>

Structured Knowledge Distillation for Semantic Segmentation:

<https://zpascal.net/cvpr2019/Liu_Structured_Knowledge_Distillation_for_Semantic_Segmentation_CVPR_2019_paper.pdf>

Distilling the Knowledge in a Neural Network:

<https://arxiv.org/pdf/1503.02531.pdf>

Problem with the distillation GitHub:

They use ABNs (Activated Batch Normalization), which is a more performant version of BN + Activation (Leaky ReLU). So we can’t just replace it with BN + Act, since they weights will not transfer. And PyTorch has BN and SyncBatchNorm, but they are not activated...