NOTES ON READING A PAPER. By the end of reading a paper you should be able to (from memory) draw the entire architecture and training procedure starting from HxWx3 input image. To a scalar loss value / prediction. We will indeed test you on this.

(A) Architecture papers

1. AlexNet: https://papers.nips.cc/paper/4824-imagenet-classification-with-deep-convolutional-neural-networks.pdf
2. VGG net: https://arxiv.org/pdf/1409.1556.pdf
3. ResNet: https://arxiv.org/pdf/1512.03385.pdf
4. Wide ResNet: https://arxiv.org/pdf/1512.03385.pdf
5. Dense Net: https://arxiv.org/pdf/1608.06993.pdf
6. Inception network v1: https://arxiv.org/pdf/1409.4842.pdf
7. Inception network v3: https://arxiv.org/pdf/1512.00567.pdf
8. Deep Learning Book Chapter 11: Shared through google drive
9. (Optional)Fractal Network: https://arxiv.org/pdf/1605.07648.pdf

(B) Bounding box papers

1. Faster RCNN: https://arxiv.org/pdf/1506.01497.pdf
2. Single Shot Detection(SSD): https://arxiv.org/pdf/1512.02325.pdf
3. Feature Pyramid Net: https://arxiv.org/pdf/1612.03144.pdf
4. Retina Net, Focal loss: https://arxiv.org/pdf/1708.02002.pdf

(C) Image Segmentation

1. Deep Lab Atrous: https://arxiv.org/pdf/1606.00915.pdf
2. U-Net: https://arxiv.org/pdf/1505.04597.pdf
3. HourGlass: https://arxiv.org/pdf/1603.06937.pdf
4. Dice Coefficient: https://ipfs.io/ipfs/QmXoypizjW3WknFiJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/Dice's_coefficient.html
5. Tiramisu: https://arxiv.org/pdf/1611.09326.pdf
6. MaskRCNN: https://arxiv.org/pdf/1703.06870.pdf

(D) RNN

1. CRNN: http://proceedings.mlr.press/v32/pinheiro14.pdf
2. TextBoxes: https://www.aaai.org/ocs/index.php/AAAI/AAAI17/paper/download/14202/14295
3. (Optional) Google Attention: https://arxiv.org/pdf/1704.03549.pdf

(E) Embedding

1. FaceNet: https://arxiv.org/pdf/1503.03832.pdf

Due Date: Monday, January 15th

Total number of papers to read: Mandatory: 21 Optional: 2

Google Drive Link for papers: https://drive.google.com/open?id=1CcE4074LpiuAYKqbEmsnQQ0StISuTJkQ