

References

This course drew from the following resources:

Week 1:

- [Fully Convolutional Networks for Semantic Segmentation](#) (Long, Shelhamer & Darrell, 2014)
- [U-Net](#): Convolutional Networks for Biomedical Image Segmentation (Ronneberger, Fischer & Brox, 2015)
- [DeepLab](#): Semantic Image Segmentation with Deep Convolutional Nets, Atrous Convolution, and Fully Connected CRFs (Chen, Papandreou, Kokkinos, Murphy, and Yuille, 2016)
- [Mask R-CNN](#) (He, Gkioxari, Dollár & Girshick, 2017)

Week 2:

- [Amazon Rekognition](#)
- [PowerAI](#)
- [DIGITS](#)
- ([R-CNN](#)) Rich feature hierarchies for accurate object detection and semantic segmentation (Girshick, Donahue, Darrell & Malik, 2013)
- [Fast R-CNN](#) (Girshick, 2015)
- [TensorFlow Hub](#)
- [Object Detection API](#)
- ([RetinaNet](#)) Focal Loss for Dense Object Detection (Lin, Goyal, Girshick, He & Dollár, 2017)
- [TensorFlow's Model Garden](#)

Week 3:

- [Fully Convolutional Networks for Semantic Segmentation](#) (Long, Shelhamer & Darrell, 2014)
- [Divam Gupta](#)'s GitHub account containing a subsample of the CamVid dataset to create a smaller dataset.
- [U-Net: Convolutional Networks for Biomedical Image Segmentation](#) (Ronneberger, Fischer & Brox, 2015)

Week 4:

- [Grad-CAM: Visual Explanations from Deep Networks via Gradient-based Localization](#) (Selvaraju, Cogswell, Das, Vedantam, Parikh & Batra, 2019)

A conceptual overview of GradCam

For an optional, conceptual look at GradCAM, please see these videos from DeepLearning.AI's "[AI for Medical Treatment](#)" course.

[Interpreting CNN models](#)

[Localization maps](#)

[Heat maps](#)

- ([ZFNet](#)) Visualizing and Understanding Convolutional Networks (Zeiler & Fergus, 2013)