**[CS-8395 Spring 2020]**

**Deep Learning in Medical Image Computing**

**\* Please print and bring it before each class**

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Paper Title: U-Net: Convolutional Networks for Biomedical Image Segmentation

Please summarize the paper using your own words: (<100 words)

This paper presents an architecture for medical image segmentation. The first part of the architecture utilizes a standard VGG-like architecture, but the authors also add a second upsampling part since we need to make predictions for each pixel. Moreover, in the upsampling portion, the authors utilize connections from the downsampling portion in a manner that is a subset of DenseNet (not utilizing all connections, but only some) so that both higher and lower level features are used. Moreover, the authors use data augmentation due to the small size of some segmentation challenges. The authors end by demonstrating that their network performs well on existing datasets.

Question 1 for the paper: What do the metrics such as warping error and rand error mean?

Question 2 for the paper: How well does this architecture work for non-medical segmentation?