

CS323: Deep Learning for Visual Computing

Reading Assignment 2

Due Date - 09/03/2023

Welcome to the second reading assignment of CS323. These assignments aim at preparing you for the projects through providing you with important readings. You will be expected to answer questions related to the readings, material provided in class, or both. Good Luck ☺...

1 YOLO Paper

Read YOLO paper titled "You Only Look Once: Unified, Real-Time Object Detection" by Joseph Redmon et al. (<https://arxiv.org/pdf/1506.02640.pdf>). This paper is arguably the most influential paper in object detection.

2 DeepLabV3 Paper

Read DeepLabV3 paper titled "Rethinking Atrous Convolution for Semantic Image Segmentation" by Liang-Chieh Chen et al. (<https://arxiv.org/pdf/1706.05587.pdf>). This paper is one of the most influential paper in image segmentation.

Question:

Briefly discuss the contributions of each of the two papers above. Compare segmentation and object detection tasks in general and then highlight the difference between the architectures and tricks used for object detection to those used in image segmentation.