

Homework 6

Generate a saliency map of the given image using the following formula:

$$S(i) = \sum_{j=1}^N \|I_i - I_j\|_2$$

where $S(i)$ denotes the saliency value obtained at i -th pixel, and I_i and I_j denote RGB color vectors at i -th and j -th pixel, respectively. $\|\cdot\|_2$ denotes L2-norm. N is number of pixels.

After employing appropriate enhancement techniques, try different thresholds on the saliency map to generate a binary mask that highlights the horse.

Now, compare the generated mask with the given groundtruth mask using IoU (Intersection over Union) metric and report the score. Study about the IoU metric yourself from the internet.

A sample reference for IoU: <https://www.geeksforgeeks.org/calculation-intersection-over-union-iou-for-evaluating-an-image-segmentation-model-using-java/>



Image



Groundtruth