DIGITAL SURVEILLANCE SYSTEM AND APPLICATION

EXAM GRADES

Jison Hsu

Artificial Vision Laboratory

Taiwan Tech

Problem 4 [25/120]

4. Please modify the Prob4.ipynb :

    A. Test the given images on the Colab. [2/25]

    B. Consider the five images shown in DSS_TEST folder , add in the part for computing the IOU. Calculate the average IOU with the prediction bbox and ground truth bbox. [4/25]

    C. Please compute the MSE between the prediction bbox and ground truth bbox. [8/25]

    D. Given the five images from B. please draw the PR-Curve with threshold =[0.2, 0.4, 0.6, 0.8]. [8/25]

    E. If the number of classes is 4, please compute the filter size [3/25]

Problem 5 [25/120]

5. Please modify the Prob5.ipynb :

A. Train from scratch (i.e. without using the pretrain model). [3/25]

B. Consider the five images shown in DSS_TEST folder, please compare the average IOU obtained by using the pretrained model (given in the code) and your train-from-scratch model (from A.). [6/25]

C. What is Average Precision (AP)? [3/25]

D. Given the five images in B. Please using the pertained model to compute the AP by threshold=[0.2, 0.4, 0.6, 0.8]. [8/25]

E. Write down your observation for the estimation from D. [5/25]