

Assignment #1
Possible points: 100

Due date: March 5th 2021

Please generate a report containing snapshot of the output for all the questions. The pdf version of the report should be uploaded to the blackboard by the due date.

1. Download PASCAL VOC 2012 dataset available at this link:

<http://host.robots.ox.ac.uk/pascal/VOC/>.

(50 points)

- On a subset of 50 images from PASCAL VOC dataset, perform data augmentation by applying affine transformation to the images (translation, rotation, scaling etc..)
- On a randomly selected image from PASCAL VOC dataset compute (a) image statistics, (b) histogram, (c) histogram equalization and (d) binarize it.

2. Apply inpainting operation based on the algorithm Fast Marching to remove glare from the below image. The corresponding mask is also given. (50 points)

Notes: **Glare** is a visual sensation caused by excessive and uncontrolled brightness. It can be disabling or simply uncomfortable.

