MSBD 5012 HA9 report

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Assignment #: Assignment HA9

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Course Name: MSBD5012

• Grad_cam:

	Predictive scores	Gra_CAM Heat map	Lime Heat map
1.png	'n11879895', 'rapeseed', 1.0		100 25 50 75 100 125 150 0 50 100 150 200
2.png	'n01806143', 'peacock', 1.0		0 25 50 75 100 125 0 50 100 150 200 0 50 100 150 200
3.png	'n04613696', 'yurt', 1.0		0 25 50 77 100 125 150 175 200 0 50 100 150 200
4.png	'n03544143', 'hourglass', 1.0		-0.015 50 77 100 125 150 0 50 100 150 200

5.png	'n04562935', 'water_tower', 0.999994	THORNVIH	0 25 -0 015 -0 015 -0 005 -0 005 -0 015 -0 0
6.png	'n02391049', 'zebra', 0.9999896		25 50 75 100 125 200 0 50 100 150 200
7.png	'n04146614', 'school_bus', 0.9999945		0 25 50 100 125 150 175 200 0 50 100 150 200
8.png	'n03938244', 'pillow', 0.9999976		0 25 50 75 100 125 150 0 50 100 150 200
9.png	'n03344393', 'fireboat', 0.9999939		0 25 - 0.075 - 0.050 - 0.025 - 0.000 - 0.075 - 0.050 - 0.075 - 0.050 - 0.075 - 0.050 - 0.075 - 0.050 - 0.075 -
10.png	'n02966193', 'carousel', 0.9999975		0 25 50 75 100 125 150 0 50 100 150 200 -0 01 -0 00 -0 01 -0 02 -0 01 -0 02 -0 02 -0 00 -0 02 -0 00 -0

Base on the RestNet50 by using Grad-CAM, it all focus on the center of the images since the center of the images are the identified objects which dominant in the images. Note that in 6.png which identifies the image as zebra, note that the zebra far away from camera is less significant compare to the zebra which near the camera, but the former is still be counted.

Comparison:

On 3.png, the Grad_CAM is focus on center of image but the Lime is focus on the top corner of the yurt which is clearly a shape of triangle. In the 9.png, we see that Grad_CAM is focus on the water be jet instead of the boat, but the Lime is more focus on then boat instead of the water jet.