Supplementary material for ijcai2019

Anonymous IJCAI submission
Paper ID 4173

1 Visualization of DAM Module(Figure 1)

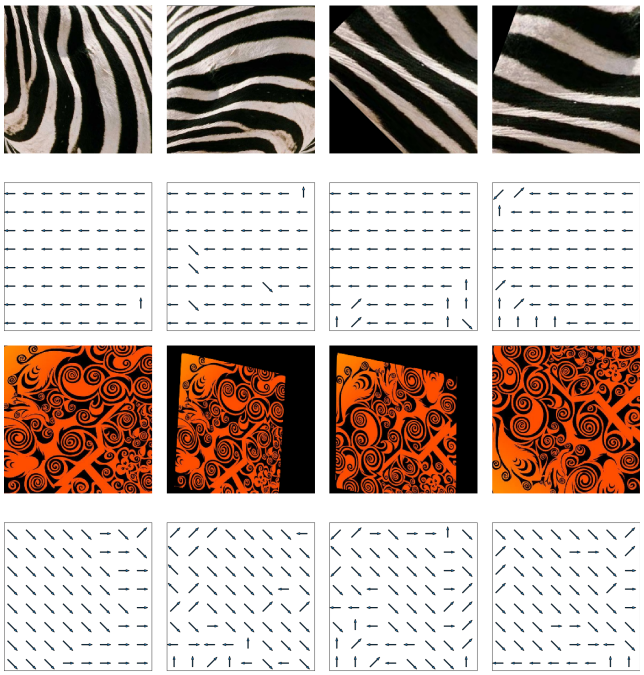

Figure 1: As show in the figure, the first line of the two settings of images is the reference images after affine transformation, and the second line is the corresponding results of visualization. Each arrow in the second row represents the direction in which the corresponding texture image is most activated in the DAM module. We take the direction with the largest eigenvalue of 8. We can see that when different spatial deformations are imposed on the texture images, we can still achieve consistent directional feature responses.

2 GCM Module(Figure 2)

3 Network framework(Figure 3)

4 Experiments

4.1 Pascal-5(Figure 4, Tabel 1)

4.2 FMD(Figure 5, Tabel 2)

4.3 Opensurface(Figure 6)

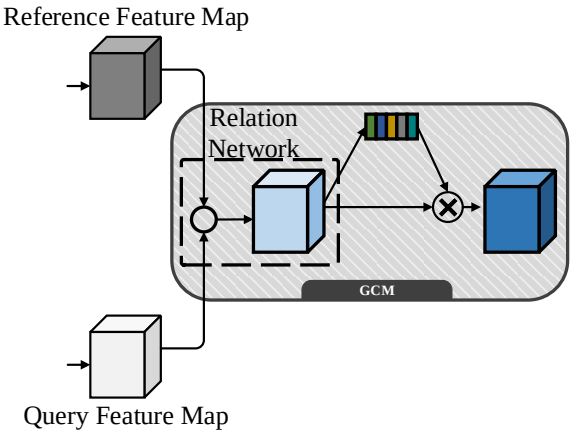

Figure 2: As can be seen, it consists of a relation networka and a channel-wise attention unit, which accounts for the generation of similarity measurement, and the aggregation of global context with channel-wise features, respectively.

Method	i=0	i=1	i=2	i=3	mean
OSLSM	33.6	55.3	40.9	33.5	40.8
Our	37.2	50.2	41.8	35.1	41.1

Table 1: Our comparison with other methods on the PASCAL-5 datasets in terms of mean IoU. The setting of experiment is the same as OSLSM.

Method	IoU
OSTC	0.216
OSLSM	0.326
Our	0.357

Table 2: Our comparison with other methods on the FMD datasets in terms of mean IoU. The setting of experiment is the same as our paper.

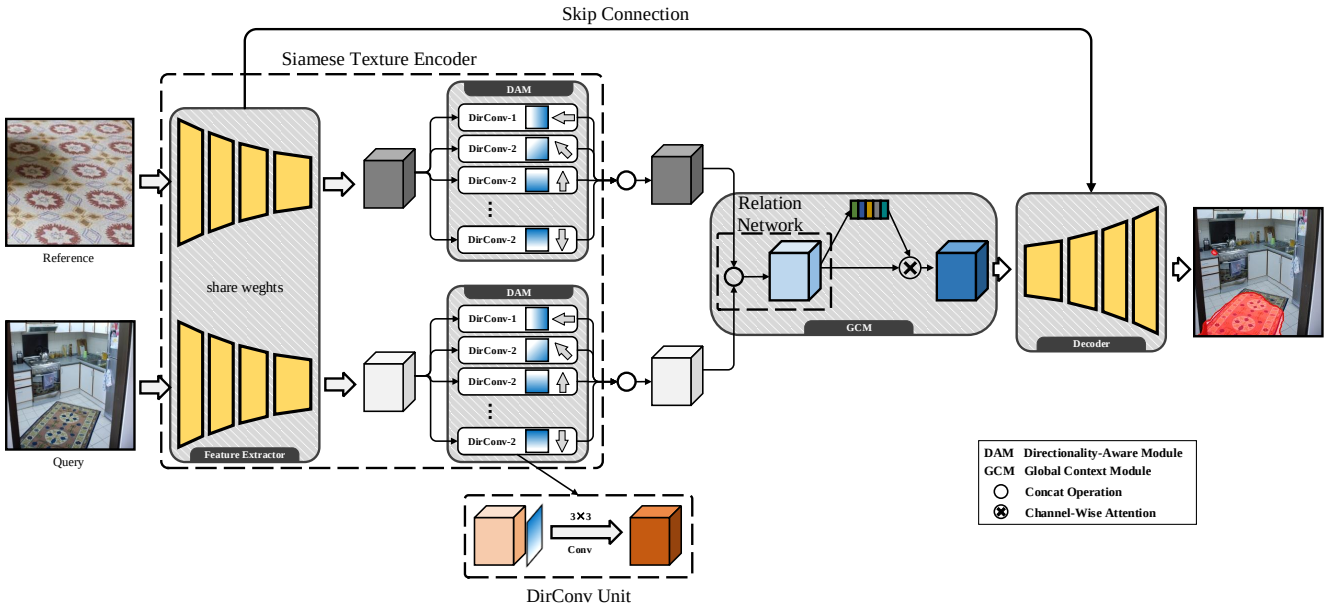

Figure 3: Overall of our OS-TR network. We show a more detailed network structure diagram here.

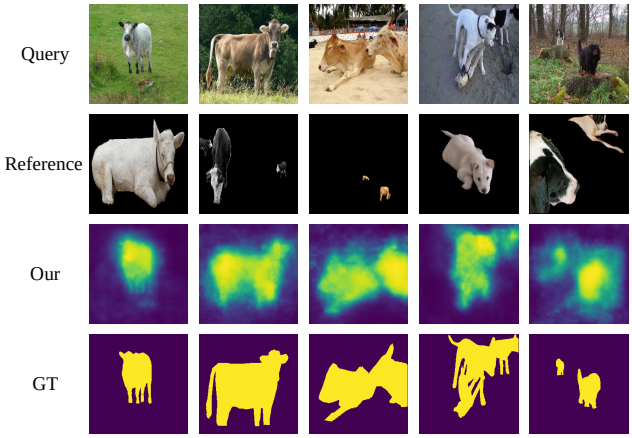

Figure 4: DAM

Figure 5: Some qualitative results of our model on FMD datasets.

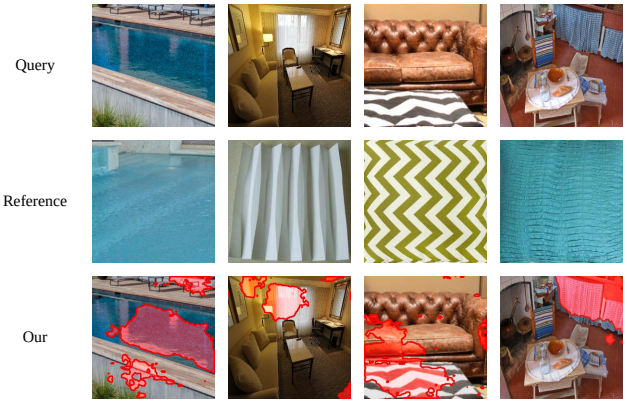

Figure 6: Some qualitative results of our model on OS datasets. Due to the complexity of the OS dataset, we did not give corresponding objective results during rebuttal, which will be part of our future work. We give some subjective test results of OS images in Figure 6 of our original paper, here we add some more. In addition, we also present the subjective and objective results in the Pascal-5 and FMD datasets as shown above.