Supplementary Material: Few-Shot Semantic Segmentation with Democratic Attention Networks

Haochen Wang[1,6*], Xudong Zhang[1*], Yutao Hu[1], Yandan Yang[1], Xianbin Cao[1,2,3†], and Xiantong Zhen[4,5]

[1] Beihang University, Beijing, China
[2] Key Laboratory of Advanced Technology of Near Space Information System, Ministry of Industry and Information Technology of China
[3] Beijing Advanced Innovation Center for Big Data-Based Precision Medicine, China
[4] AIM Lab, University of Amsterdam, The Netherlands
[5] Inception Institute of Artificial Intelligence, Abu Dhabi, UAE
[6] YouKu Cognitive and Intelligent Lab, Alibaba Group
{haochenwang,xdzhang,huyutao,yangyandan}@buaa.edu.cn, xbcao@buaa.edu.cn, zhenxt@gmail.com

1 Qualitative Visualizations on COCO-20^i

Fig. 1. Visualization of segmentation results on the COCO-20^i dataset. Our DAN can produce highly accurate segmentation maps in very challenging cases.

*These authors contribute equally.
†Corresponding author.

2 Failure cases.

To gain more insight into the proposed DAN, we show some challenging cases that allude our method on PASCAL-5^i in Fig. 2. In the first case (top left), the cars in the query image are much smaller than the other objects, such as the horse, which makes it challenging for them to be captured. In the third case (bottom left), the foreground regions are predicted independently at each location, leading to discontinuous patches, which could be relieved by using post processing operations such as CRF. In the forth case (bottom right), the appearance of the cat is similar to the dog, which causes great confusion.

Fig. 2. Visualization of some failure cases on the Pascal-5^i dataset.