

Prediction and Recovery for Adaptive Low-Resolution Person Re-Identification

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1 Supplementary Material

Scale factor setting. Presetting proper alternative scale factors carries a higher chance of finding out the optimal scale factor. A proper presetting should contain multiple scale factors, including the smaller scale factors that keep the original information better, and the larger ones that recover more missing details. However, simply increasing the number of scale factors does not always benefit the performances. As shown in Table 1, presetting alternative scale factors to 1, 2, 3, 4 achieves competitive results on MLR-CUHK03 and MLR-DukeMTMC-reid. The reason why additionally using 5 or 6 has little effect, or even degenerates the performances is two-fold. First, 5 and 6 are larger scale factors and easily bring excessive disruptive noise to the recovered images. Besides, more scale factors make it more difficult to choose a suitable one from them. Therefore, we can see that both too many and too few alternative scale factors may limit the performances, in which case four scale factors 1, 2, 3, 4 are a suitable setting.

Table 1. Rank 1 scores of different scale factor settings (%).

Scale factor setting	MLR-CUHK03	MLR-DukeMTMC-reid
1	76.8	71.2
1,2	80.1	75.6
1,2,3	82.3	76.8
1,2,3,4	85.2	78.3
1,2,3,4,5	84.9	78.5
1,2,3,4,5,6	83.7	77.6

Weight factors. We evaluate the weight factors α and β of the identity loss L_{id} and triplet loss L_{tri} in Equation 6 of the main paper. As shown in Figure 1, α or β has the similar changing trend in terms of the rank 1 score on MLR-CUHK03 and MLR-DukeMTMC-reid. For example, the rank 1 reaches the top value when

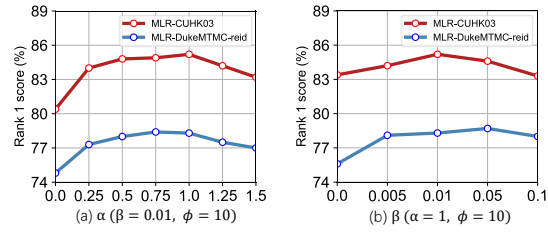


Fig. 1. Evaluation of weight factors.

α is around 1, *i.e.*, giving similar weights to the SR loss L_{sr} and identity loss L_{id} . This shows that learning the effective detail recovery (L_{sr}) and identity discrimination (L_{id}) are nearly equally important to LR re-id.