

OSM: An Open Set Matting Framework with OOD Detection and Few-Shot Learning

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| Methods | AUROC(IN)↑ | AUPR(IN)↑ | FPR95(IN)↓ | AUROC(OUT)↑ | AUPR(OUT)↑ | FPR95(OUT)↓ | DetectionError↓ |
|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|
| MSP [1] | 0.550 | 0.888 | 0.950 | 0.550 | 0.163 | 0.860 | 0.371 |
| MaxLogit [2] | 0.678 | 0.910 | 0.843 | 0.678 | 0.314 | 0.877 | 0.324 |
| EnergyScore [3] | 0.693 | 0.913 | 0.743 | 0.693 | 0.342 | 0.877 | 0.319 |
| 1-D Subspaces [4] | 0.748 | 0.939 | 0.664 | 0.748 | 0.420 | 0.689 | 0.306 |
| MMSP [5] | 0.607 | 0.912 | 0.986 | 0.607 | 0.176 | 0.656 | 0.344 |
| EDS [6] | 0.436 | 0.825 | 1.000 | 0.436 | 0.149 | 1.000 | 0.500 |
| OOD-DN (Ours) | 0.758 | 0.949 | 0.800 | 0.758 | 0.337 | 0.513 | 0.274 |

Table 1: Additional OOD detection results on SIMD dataset.

1 Additional Results

In this section, we present another OOD-ID split setting of SIMD dataset where we consider 5 classes, i.e., lace, silk, net, spider_web, plastic_bag, out of 20 classes as OOD data. The comparison of our OOD-DN and other OOD detection methods is shown in Table 1. The results show that our OOD-DN is better than other state-of-the-art methods on most of evaluation metrics.

References

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