Prompt Learning with One-Shot Setting based Feature Space Analysis in Vision-and-Language Models

Supplementary Material

6. Detailed Accuracies for Each Dataset on Base-to-New

Here, we show the detailed accuracies of all 10 dataset on Base-to-New. All experiments are run by three times with different seed, and the averaged result is shown.

Table 6: Average results over three runs (1shot).

| (a) Average over 11 datasets | | | | | (b) ImageNet | | | | (c) Caltech101 | | | |
|------------------------------|-------|-------|-------|--------|------------------|-------|-------|---|----------------|-------|-------|-------|
| | Base | New | Н | | Base | New | Н | _ | | Base | New | Н |
| СоОр | 71.58 | 73.24 | 68.75 | CoOp | 65.87 | 54.67 | 59.75 | • | CoOp | 96.43 | 92.40 | 94.37 |
| CoCoOp | 73.24 | 73.61 | 73.39 | CoCoOp | 74.43 | 69.63 | 72.20 | | CoCoOp | 97.23 | 94.20 | 95.69 |
| Ours | 74.62 | 74.62 | 74.55 | Ours | 73.77 | 68.13 | 70.84 | - | Ours | 96.95 | 93.50 | 95.19 |
| (d) OxfordPets | | | | | (e) StanfordCars | | | | (f) Flowers102 | | | |
| | Base | New | Н | | Base | New | Н | | | Base | New | Н |
| CoOp | 90.87 | 95.23 | 93.00 | CoOp | 58.53 | 64.13 | 61.20 | - | CoOp | 85.53 | 63.90 | 73.15 |
| CoCoOp | 93.77 | 97.40 | 95.55 | CoCoOp | 65.93 | 74.23 | 69.83 | | CoCoOp | 74.40 | 76.37 | 75.37 |
| Ours | 93.53 | 97.50 | 95.48 | Ours | 66.43 | 74.80 | 70.30 | | Ours | 76.43 | 74.97 | 75.69 |
| (g) Food101 | | | | | (h) FGVCAircraft | | | | (i) SUN397 | | | |
| | Base | New | Н | | Base | New | Н | | | Base | New | Н |
| CoOp | 85.17 | 88.83 | 86.96 | CoOp | 26.10 | 25.03 | 25.55 | | CoOp | 67.60 | 60.77 | 64.00 |
| CoCoOp | 89.33 | 90.43 | 89.88 | CoCoOp | 22.00 | 24.10 | 23.00 | | CoCoOp | 73.97 | 76.50 | 75.19 |
| Ours | 89.13 | 90.77 | 89.94 | Ours | 30.37 | 32.63 | 31.46 | | Ours | 73.10 | 74.93 | 74.00 |

| (j) EuroSAT | | | | | | |
|-------------|-------|----------------|-------|--|--|--|
| | Base | New | Н | | | |
| CoOp | 65.83 | 51.37 61.63 | 57.71 | | | |
| CoCoOp | 65.63 | 61.63 | 63.57 | | | |
| Ours | 71.97 | 66.45 | 69.10 | | | |

| (k) UCF101 | | | | | | |
|------------|-------|-------|-------|--|--|--|
| | Base | New | H | | | |
| CoOp | 74.07 | 69.73 | 71.83 | | | |
| CoCoOp | 75.73 | 71.63 | 73.62 | | | |
| Ours | 74.53 | 72.53 | 73.52 | | | |