Human parsing: An Overview

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Overview

- GAN-based Parsing
- ② Retrieval-based Parsing
- The latest dataset for clothing parsing
- Person ReID combined with human parsing



Luo et al. [2]

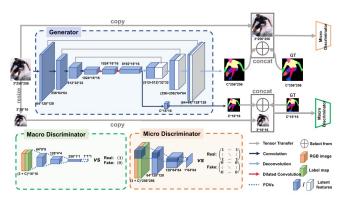


Figure: MMAN





Yamaguchi et al. [3]

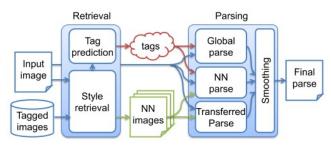


Figure 1: Parsing pipeline.



Figure: Clothing parsing based on Retrieval

Kalayeh et al. [1]

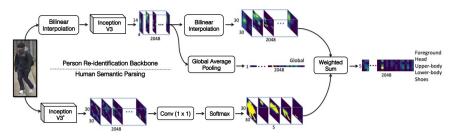


Figure: SPReID



Yang 2018 [4]



Figure: ModaNet Dataset



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Yang 2018 [4]

Table 2: ModaNet statistics. We group highly-related categories to form 13 meta categories.

| Meta | Raw | #Train | #Val | Avg Inst. size |
|------------|-----------------------------|---------|--------|----------------|
| bag | bag | 36, 699 | 2, 155 | 4.88% |
| belt | belt | 13, 743 | 771 | 0.46% |
| boots | boots | 7,068 | 691 | 2.40% |
| footwear | footwear | 39, 364 | 1,617 | 0.96% |
| outer | coat, jacket, suit, blazers | 23, 743 | 1, 358 | 7.48% |
| dress | dress, t-shirt dress | 14, 460 | 804 | 10.49% |
| sunglasses | sunglasses | 8, 780 | 524 | 0.31% |
| pants | pants, jeans, leggings | 23, 075 | 1, 172 | 5.65% |
| top | top, blouse, t-shirt, shirt | 34, 745 | 1,862 | 4.83% |
| shorts | shorts | 5, 775 | 429 | 2.86% |
| skirt | skirt | 10, 860 | 555 | 6.40% |
| headwear | headwear | 5, 405 | 491 | 1.25% |
| scarf&tie | scarf, tie | 3, 990 | 378 | 2.55% |





Reference I



Mahdi M Kalayeh et al. "Human Semantic Parsing for Person Re-identification". In: (). arXiv: arXiv: 1804.00216v1.



Yawei Luo et al. "MMAN". In: ().



 ${\sf Kota\ Yamaguchi\ et\ al.\ "Paper\ Doll\ Parsing\ :\ Retrieving\ Similar\ Styles\ to\ Parse\ Clothing\ Items".\ In:\ ().}$



Fan Yang. "ModaNet: A Large-scale Street Fashion Dataset with Polygon Annotations". In: (2018). arXiv: arXiv:1807.01394v3.



Thanks

Thanks for Attention!

