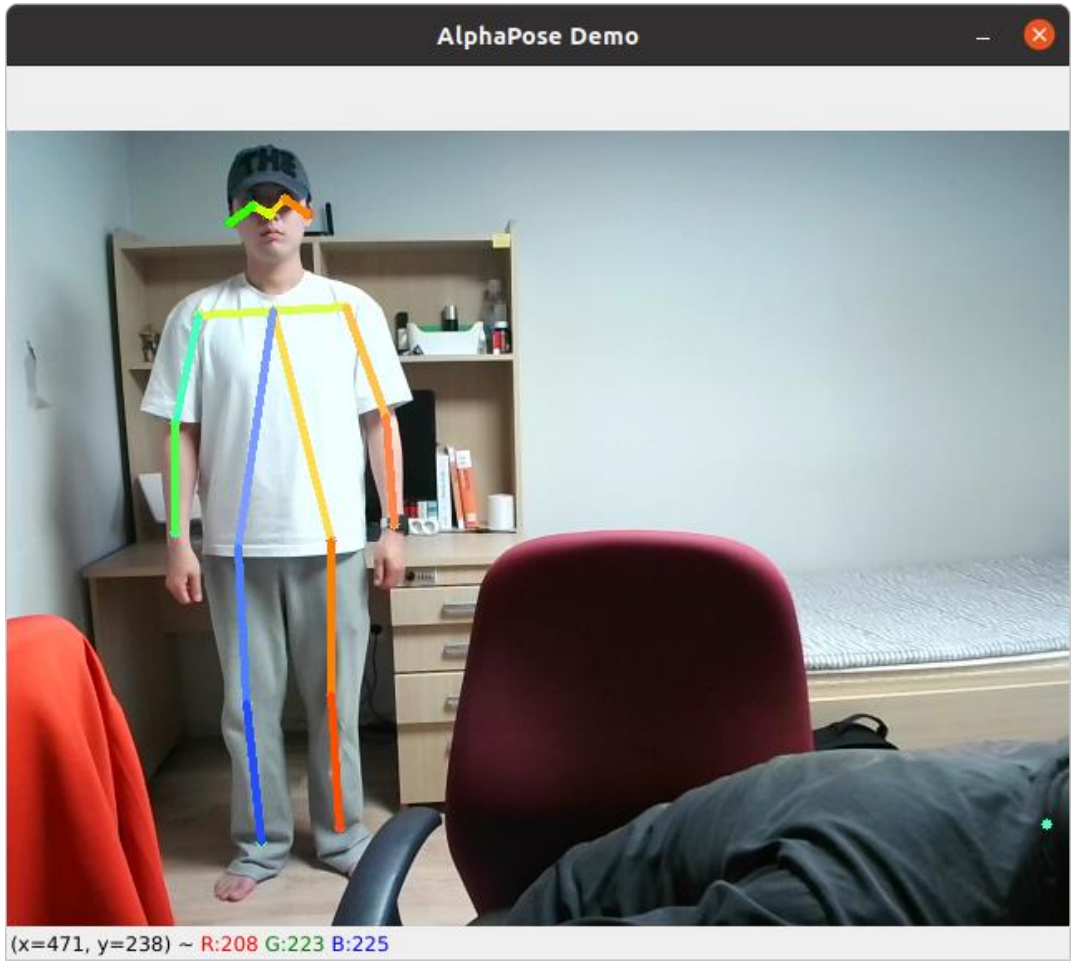
AlphaPose

2018250033 유규빈
2018250056 함상진

MSCOCO 데이터셋 모델 성능



01 얼굴 손, 발 인식 미지원

02 인식하는 부분이 적은만큼 빠름

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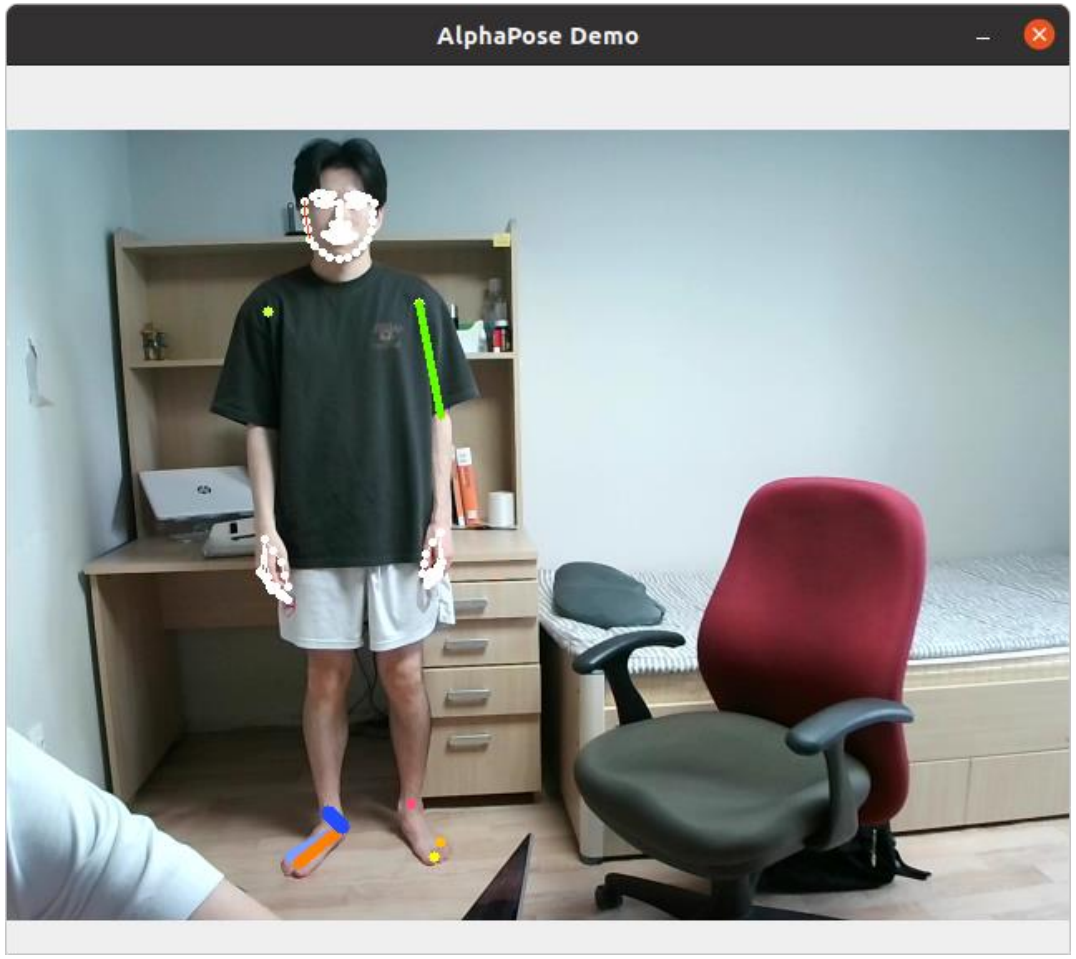
Halpe 데이터셋 모델 성능



인식 성능이 좋지 않음

인식을 잘 되지만 몸통 인식 미지원

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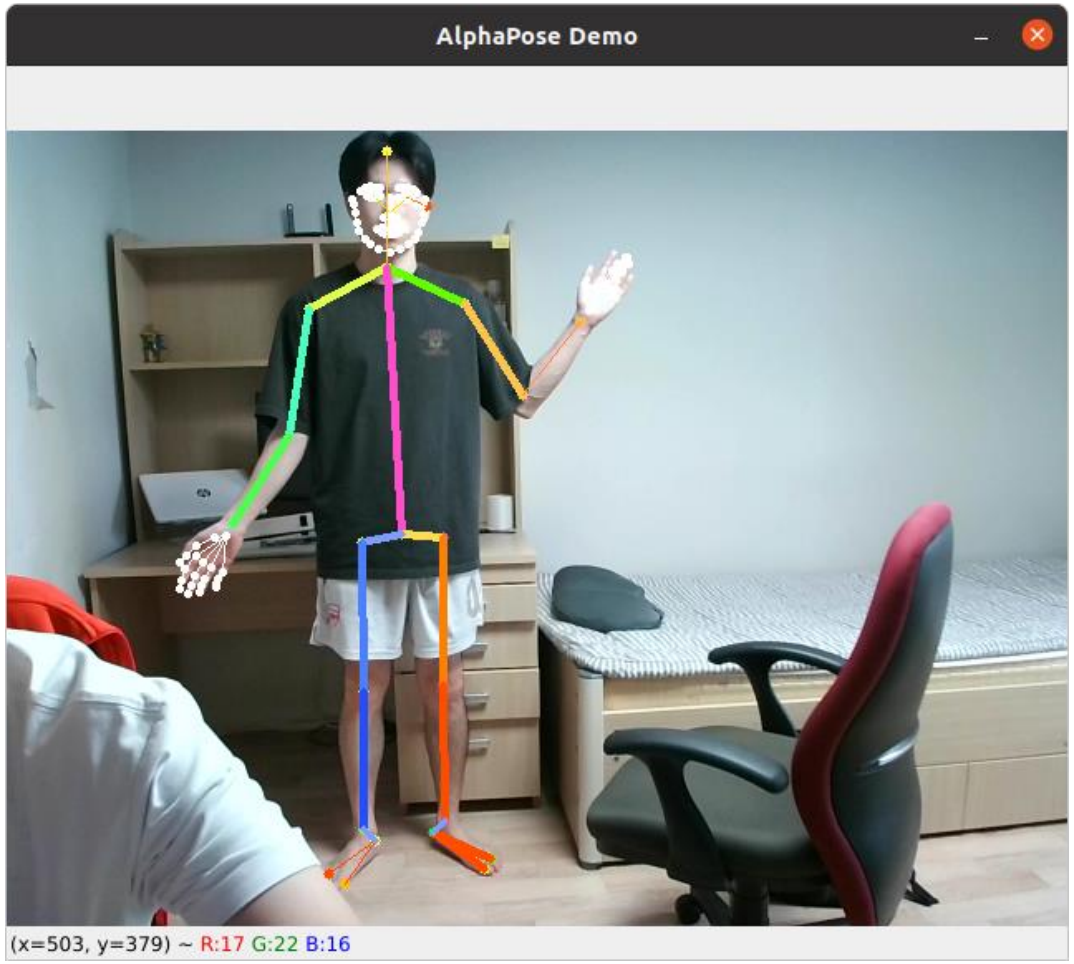
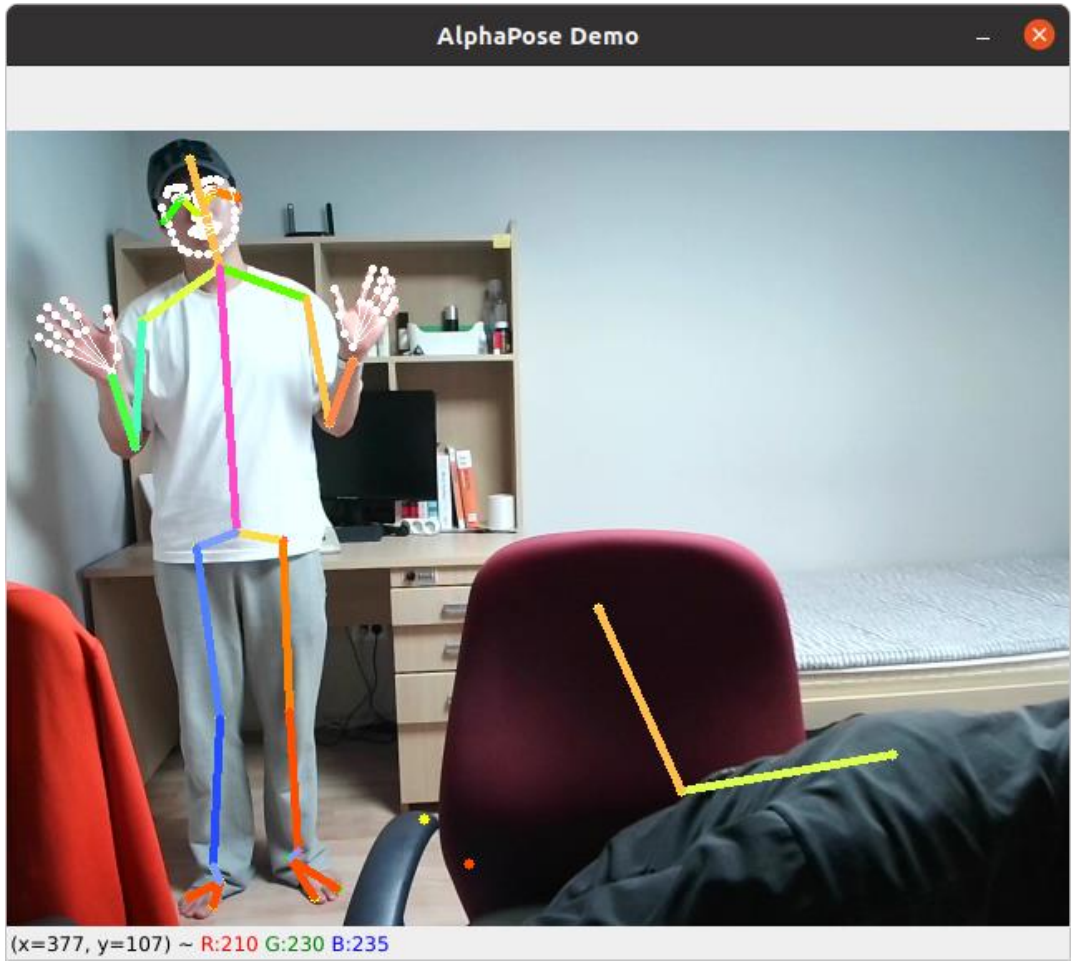
COCO-WholeBody 데이터셋 모델 성능





두 모델 모두 손과 발, 그리고 얼굴까지 지원이 잘 됨

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Multi_Domain 데이터셋 모델 성능

Fast Pose (DCN)	ResNet50 - dcn	YOLOv3	256x192	Combined (10 hand weight)	49.8	10.35 iter/s	Google Baidu(code: app1)	cfg	136

Fast Pose (DCN)	ResNet50 - dcn	YOLOv3	256x192	Combined	-	13.88 iter/s	Google Baidu(code: 6kwr)	cfg	68 (no face)

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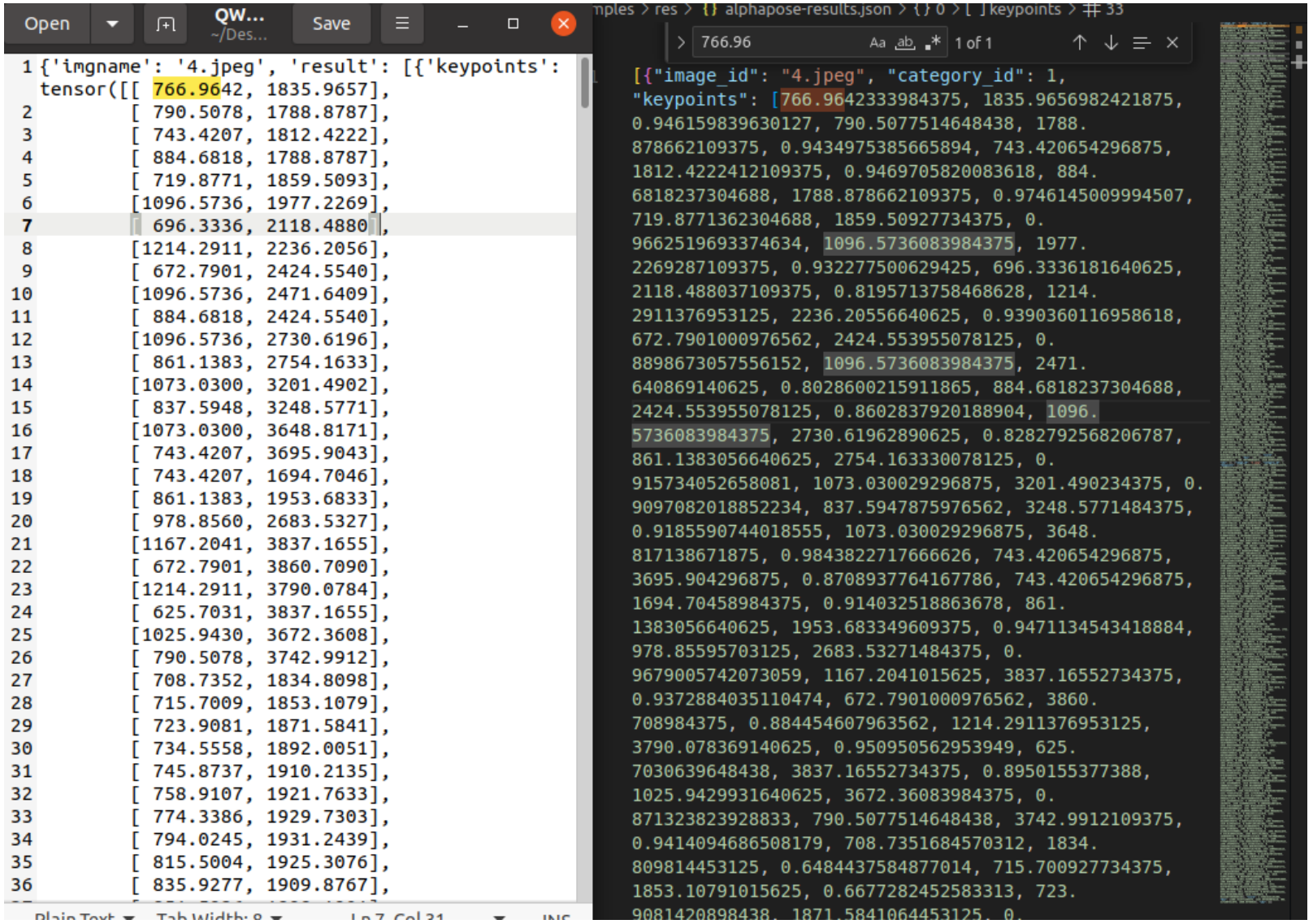
Activities
Unknown
5월 4 16 : 19
en
o401
Trash
AlphaPose
cuda-repo-ubuntu2004-1...
cuda-repo-ubuntu2004-1...
hello.c
hello
hello_x86
test
AlphaPose Demo
(x=638, y=114) ~ R:162 G:186 B:189
o401@o401-desktop: ~/Desktop/AlphaPose
utdir examples/res --vis --vis_fast --pose_track --webcam 0
/home/o401/.local/lib/python3.8/site-packages/torchvision/models/_utils.py:208:
UserWarning: The parameter 'pretrained' is deprecated since 0.13 and may be remo
ved in the future, please use 'weights' instead.
warnings.warn(
/home/o401/.local/lib/python3.8/site-packages/torchvision/models/_utils.py:223:
UserWarning: Arguments other than a weight enum or `None` for 'weights' are depr
ecated since 0.13 and may be removed in the future. The current behavior is equi
valent to passing `weights=ResNet50_Weights.IMAGENET1K_V1`. You can also use `we
ights=ResNet50_Weights.DEFAULT` to get the most up-to-date weights.
warnings.warn(msg)
Loading pose model from pretrained_models/multi_domain_fast50_dcn_combined_256x1
92.pth...
Loading YOLO model..
loading reid model from trackers/weights/osnet_ain_x1_0_msmt17_256x128_amsgrad_e
p50_lr0.0015_coslr_b64_fb10_softmax_labsmth_flip_jitter.pth...
Starting webcam demo, press Ctrl + C to terminate...
0it [00:00, ?it/s]/home/o401/Desktop/AlphaPose/trackers/__init__.py:19: UserWarn
ing: Creating a tensor from a list of numpy.ndarrays is extremely slow. Please c
onsider converting the list to a single numpy.ndarray with numpy.array() before
converting to a tensor. (Triggered internally at ../torch/csrc/utils/tensor_new.
cpp:245.)
new_hm = torch.Tensor(new_hm).to(args.device)
1319it [02:24, 8.08it/s]

Activities
Terminal
5월 4 16 : 23
en
o401
Trash
AlphaPose
cuda-repo-ubuntu2004-1...
cuda-repo-ubuntu2004-1...
hello.c
hello
hello_x86
test
AlphaPose Demo
(x=597, y=4) ~ R:150 G:179 B:187
o401@o401-desktop: ~/Desktop/AlphaPose
res --vis --vis_fast --pose_track --webcam 0
/home/o401/.local/lib/python3.8/site-packages/torchvision/models/_utils.py:208:
UserWarning: The parameter 'pretrained' is deprecated since 0.13 and may be remo
ved in the future, please use 'weights' instead.
warnings.warn(
/home/o401/.local/lib/python3.8/site-packages/torchvision/models/_utils.py:223:
UserWarning: Arguments other than a weight enum or `None` for 'weights' are depr
ecated since 0.13 and may be removed in the future. The current behavior is equi
valent to passing `weights=ResNet50_Weights.IMAGENET1K_V1`. You can also use `we
ights=ResNet50_Weights.DEFAULT` to get the most up-to-date weights.
warnings.warn(msg)
Loading pose model from pretrained_models/noface_fast50_dcn_combined_256x192.pth
...
Loading YOLO model..
loading reid model from trackers/weights/osnet_ain_x1_0_msmt17_256x128_amsgrad_e
p50_lr0.0015_coslr_b64_fb10_softmax_labsmth_flip_jitter.pth...
Starting webcam demo, press Ctrl + C to terminate...
0it [00:00, ?it/s]/home/o401/Desktop/AlphaPose/trackers/__init__.py:19: UserWarn
ing: Creating a tensor from a list of numpy.ndarrays is extremely slow. Please c
onsider converting the list to a single numpy.ndarray with numpy.array() before
converting to a tensor. (Triggered internally at ../torch/csrc/utils/tensor_new.
cpp:245.)
new_hm = torch.Tensor(new_hm).to(args.device)
666it [01:06, 9.28it/s]

좌표값 확인



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결론

1. 데이터셋들의 모델들이 대부분 준수한 성능을 보여줌
2. 사람이 추가될 수록 성능이 안 좋아짐
3. 출력된 좌표값을 어떻게 활용할 것인지 알아야 함

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