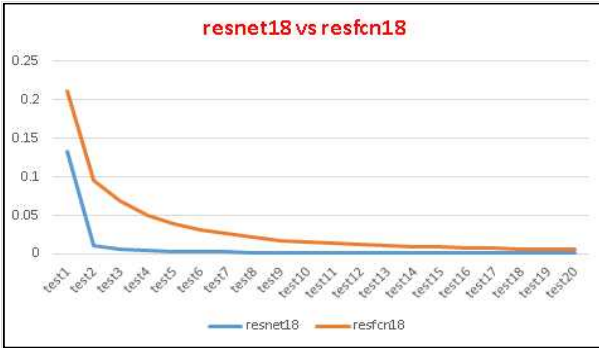
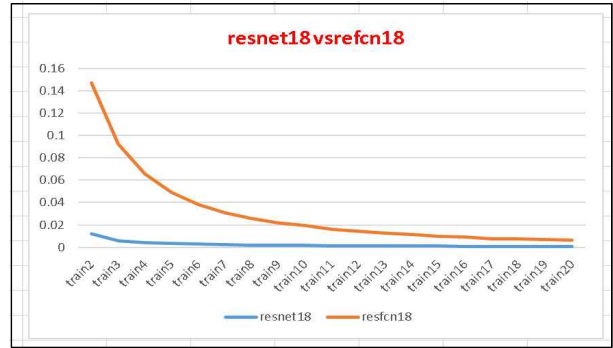


시뮬레이션 값 20212245 김희서

resnet18 vs resfcn18 : test loss값



resnet18 vs resfcn18: train loss값



	resnet18	resfcn18
train2	0.0121	0.147
train3	0.00551	0.0926
train4	0.00403	0.0654
train5	0.00325	0.0491
train6	0.00269	0.0384
train7	0.00227	0.0309
train8	0.00194	0.0256
train9	0.00166	0.0215
train10	0.00147	0.0195
train11	0.00131	0.016
train12	0.00118	0.0141
train13	0.00107	0.0125
train14	0.000973	0.0112
train15	0.000896	0.01
train16	0.000834	0.0091
train17	0.00077	0.0077
train18	0.000722	0.00756
train19	0.000674	0.00692
train20	0.000637	0.00637

	resnet18	resfcn18
test1	0.133	0.212
test2	0.0102	0.0958
test3	0.00575	0.0696
test4	0.00446	0.0504
test5	0.0036	0.039
test6	0.00295	0.0315
test7	0.00252	0.0258
test8	0.00213	0.0213
test9	0.00185	0.0178
test10	0.00165	0.0157
test11	0.00144	0.0135
test12	0.00132	0.0119
test13	0.0012	0.0107
test14	0.00108	0.00954
test15	0.000972	0.00878
test16	0.000911	0.0077
test17	0.000851	0.00697
test18	0.000803	0.00657
test19	0.000742	0.00601
test20	0.00069	0.00542

fcn값 : resfcn18 loss값

```

C:\Users\csdl>python train.py --train_dir ./images/images --test_dir ./images/images --device cpu --arch resfcn18
C:\Users\csdl\WAppData\Local\WPackages\PythonSoftwareFoundation.Python.3.9_qbz5n2kfra8p0\LocalCache\local-packages\Python39\site-packages\torch\autograd\__init__.py:478: UserWarning: This DataLoader will create 8 worker processes in total. Our suggested max number of worker in current system is 4 (cpu:1 is not taken into account), which is smaller than what this DataLoader is going to create. Please be aware that excessive worker creation might get DataLoader running slow or even freeze, lower the worker number to avoid potential slowness/freeze if necessary.
  warnings.warn('create_warning_msg')
train 1 / 20: 100% | 29/29 [11:02<00:00, 22.84s/it, accuracy=0.962, loss=0.27]
est 1 / 20: 100% | 7/7 [01:37<00:00, 13.92s/it, accuracy=0.857, loss=0.212]
train 2 / 20: 100% | 29/29 [10:08<00:00, 20.97s/it, accuracy=0.966, loss=0.147]
est 2 / 20: 100% | 7/7 [01:30<00:00, 12.96s/it, accuracy=0.857, loss=0.0958]
train 3 / 20: 100% | 29/29 [10:55<00:00, 22.02s/it, accuracy=0.966, loss=0.0926]
est 3 / 20: 100% | 7/7 [06:20<00:00, 54.41s/it, accuracy=0.857, loss=0.0696]
train 4 / 20: 100% | 29/29 [16:49<00:00, 34.81s/it, accuracy=0.966, loss=0.0654]
est 4 / 20: 100% | 7/7 [01:39<00:00, 14.19s/it, accuracy=0.857, loss=0.0504]
train 5 / 20: 100% | 29/29 [09:25<00:00, 19.49s/it, accuracy=0.966, loss=0.0491]
est 5 / 20: 100% | 7/7 [01:31<00:00, 13.07s/it, accuracy=0.857, loss=0.039]
train 6 / 20: 100% | 29/29 [10:30<00:00, 21.73s/it, accuracy=0.966, loss=0.0384]
est 6 / 20: 100% | 7/7 [01:24<00:00, 12.03s/it, accuracy=0.857, loss=0.0315]
train 7 / 20: 100% | 29/29 [08:55<00:00, 18.46s/it, accuracy=0.966, loss=0.0309]
est 7 / 20: 100% | 7/7 [01:28<00:00, 12.41s/it, accuracy=0.857, loss=0.0258]
train 8 / 20: 100% | 29/29 [09:24<00:00, 19.46s/it, accuracy=0.966, loss=0.0256]
est 8 / 20: 100% | 7/7 [01:29<00:00, 12.79s/it, accuracy=0.857, loss=0.0213]
train 9 / 20: 100% | 29/29 [09:40<00:00, 20.01s/it, accuracy=0.966, loss=0.0215]
est 9 / 20: 100% | 7/7 [17:00<00:00, 145.84s/it, accuracy=0.857, loss=0.0178]
train 10 / 20: 100% | 29/29 [10:11<00:00, 21.09s/it, accuracy=0.966, loss=0.0185]
est 10 / 20: 100% | 7/7 [02:00<00:00, 17.23s/it, accuracy=0.857, loss=0.0157]
train 11 / 20: 100% | 29/29 [09:30<00:00, 19.67s/it, accuracy=0.966, loss=0.016]
est 11 / 20: 100% | 7/7 [01:30<00:00, 12.85s/it, accuracy=0.857, loss=0.0135]
train 12 / 20: 100% | 29/29 [10:35<00:00, 21.92s/it, accuracy=0.966, loss=0.0141]
est 12 / 20: 100% | 7/7 [01:35<00:00, 13.60s/it, accuracy=0.857, loss=0.0119]
train 13 / 20: 100% | 29/29 [10:54<00:00, 22.57s/it, accuracy=0.966, loss=0.0125]
est 13 / 20: 100% | 7/7 [01:37<00:00, 13.96s/it, accuracy=0.857, loss=0.0107]
train 14 / 20: 100% | 29/29 [11:57<00:00, 24.73s/it, accuracy=0.966, loss=0.0112]
est 14 / 20: 100% | 7/7 [01:31<00:00, 13.13s/it, accuracy=0.857, loss=0.00954]
train 15 / 20: 100% | 29/29 [11:01<00:00, 22.82s/it, accuracy=0.966, loss=0.01]
est 15 / 20: 100% | 7/7 [02:27<00:00, 21.06s/it, accuracy=0.857, loss=0.00878]
train 16 / 20: 100% | 29/29 [23:00<00:00, 47.59s/it, accuracy=0.966, loss=0.0091]
est 16 / 20: 100% | 7/7 [03:32<00:00, 30.42s/it, accuracy=0.857, loss=0.0077]
train 17 / 20: 100% | 29/29 [15:16<00:00, 31.61s/it, accuracy=0.966, loss=0.00827]
est 17 / 20: 100% | 7/7 [06:56<00:00, 59.44s/it, accuracy=0.857, loss=0.00697]
train 18 / 20: 100% | 29/29 [12:48<00:00, 26.50s/it, accuracy=0.966, loss=0.00756]
est 18 / 20: 100% | 7/7 [01:30<00:00, 12.97s/it, accuracy=0.857, loss=0.00657]
train 19 / 20: 100% | 29/29 [12:16<00:00, 25.41s/it, accuracy=0.966, loss=0.00692]
est 19 / 20: 100% | 7/7 [01:45<00:00, 15.03s/it, accuracy=0.857, loss=0.00601]
train 20 / 20: 100% | 29/29 [10:44<00:00, 22.24s/it, accuracy=0.966, loss=0.00637]
est 20 / 20: 100% | 7/7 [01:20<00:00, 11.44s/it, accuracy=0.857, loss=0.00542]

```

cnnㄱ : resnet18 lossㄱ

```
C:\Users\WCS\DL_PC>python train.py --train_dir ./images/images --test_dir ./images/images --device cpu --arch resnet18
Train 1 / 20: 100%|██████████| 29/29 [20:12<00:00, 41.81s/it, accuracy=0.969, loss=3.09]
Test 1 / 20: 100%|██████████| 7/7 [02:56<00:00, 25.26s/it, accuracy=0.857, loss=0.133]
Train 2 / 20: 100%|██████████| 29/29 [21:24<00:00, 44.29s/it, accuracy=0.966, loss=0.0121]
Test 2 / 20: 100%|██████████| 7/7 [02:56<00:00, 25.22s/it, accuracy=0.857, loss=0.0102]
Train 3 / 20: 100%|██████████| 29/29 [20:10<00:00, 41.74s/it, accuracy=0.966, loss=0.00551]
Test 3 / 20: 100%|██████████| 7/7 [02:55<00:00, 25.11s/it, accuracy=0.857, loss=0.00575]
Train 4 / 20: 100%|██████████| 29/29 [20:19<00:00, 42.05s/it, accuracy=0.966, loss=0.00408]
Test 4 / 20: 100%|██████████| 7/7 [02:55<00:00, 25.13s/it, accuracy=0.857, loss=0.00446]
Train 5 / 20: 100%|██████████| 29/29 [20:06<00:00, 41.60s/it, accuracy=0.966, loss=0.00325]
Test 5 / 20: 100%|██████████| 7/7 [02:57<00:00, 25.33s/it, accuracy=0.857, loss=0.0036]
Train 6 / 20: 100%|██████████| 29/29 [20:02<00:00, 41.45s/it, accuracy=0.966, loss=0.00269]
Test 6 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.67s/it, accuracy=0.857, loss=0.00295]
Train 7 / 20: 100%|██████████| 29/29 [20:39<00:00, 42.74s/it, accuracy=0.966, loss=0.00227]
Test 7 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.59s/it, accuracy=0.857, loss=0.00252]
Train 8 / 20: 100%|██████████| 29/29 [20:48<00:00, 43.07s/it, accuracy=0.966, loss=0.00194]
Test 8 / 20: 100%|██████████| 7/7 [02:54<00:00, 24.87s/it, accuracy=0.857, loss=0.00219]
Train 9 / 20: 100%|██████████| 29/29 [20:47<00:00, 43.00s/it, accuracy=0.966, loss=0.00166]
Test 9 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.70s/it, accuracy=0.857, loss=0.00185]
Train 10 / 20: 100%|██████████| 29/29 [20:42<00:00, 42.83s/it, accuracy=0.966, loss=0.00147]
Test 10 / 20: 100%|██████████| 7/7 [02:56<00:00, 25.19s/it, accuracy=0.857, loss=0.00165]
Train 11 / 20: 100%|██████████| 29/29 [20:40<00:00, 42.76s/it, accuracy=0.966, loss=0.00131]
Test 11 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.62s/it, accuracy=0.857, loss=0.00144]
Train 12 / 20: 100%|██████████| 29/29 [20:48<00:00, 43.05s/it, accuracy=0.966, loss=0.00118]
Test 12 / 20: 100%|██████████| 7/7 [03:00<00:00, 25.73s/it, accuracy=0.857, loss=0.00132]
Train 13 / 20: 100%|██████████| 29/29 [20:47<00:00, 43.01s/it, accuracy=0.966, loss=0.00107]
Test 13 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.68s/it, accuracy=0.857, loss=0.0012]
Train 14 / 20: 100%|██████████| 29/29 [20:49<00:00, 43.09s/it, accuracy=0.966, loss=0.000973]
Test 14 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.57s/it, accuracy=0.857, loss=0.00108]
Train 15 / 20: 100%|██████████| 29/29 [20:36<00:00, 42.65s/it, accuracy=0.966, loss=0.000896]
Test 15 / 20: 100%|██████████| 7/7 [02:55<00:00, 25.08s/it, accuracy=0.857, loss=0.000972]
Train 16 / 20: 100%|██████████| 29/29 [20:41<00:00, 42.80s/it, accuracy=0.966, loss=0.000834]
Test 16 / 20: 100%|██████████| 7/7 [03:00<00:00, 25.74s/it, accuracy=0.857, loss=0.000911]
Train 17 / 20: 100%|██████████| 29/29 [20:45<00:00, 42.94s/it, accuracy=0.966, loss=0.00077]
Test 17 / 20: 100%|██████████| 7/7 [02:59<00:00, 25.62s/it, accuracy=0.857, loss=0.000851]
Train 18 / 20: 100%|██████████| 29/29 [20:39<00:00, 42.74s/it, accuracy=0.966, loss=0.000722]
Test 18 / 20: 100%|██████████| 7/7 [02:56<00:00, 25.17s/it, accuracy=0.857, loss=0.000803]
Train 19 / 20: 100%|██████████| 29/29 [20:29<00:00, 42.40s/it, accuracy=0.966, loss=0.000674]
Test 19 / 20: 100%|██████████| 7/7 [02:58<00:00, 25.43s/it, accuracy=0.857, loss=0.000742]
Train 20 / 20: 100%|██████████| 29/29 [20:29<00:00, 42.38s/it, accuracy=0.966, loss=0.000637]
Test 20 / 20: 100%|██████████| 7/7 [02:58<00:00, 25.53s/it, accuracy=0.857, loss=0.00069]
```