MMSegmentation

Tested on various Pre-Trained Nets and various Datasets

Data split into 512x512 sized chunks

1. **DeepLab-V3 Plus**
   1. LoveDa

Predict: 100%|██████████| 80/80 [01:40<00:00, 1.25s/it]

Results:

accuracy: 78.766 %

f1: 0.529

recall: 0.361 (or sensitivity)

precision: 0.988

specificity: 0.998

iou: 0.359 (or Jaccard index)

TPR: 0.361 | FNR: 0.639

TNR: 0.998 | FPR: 0.002

PPV: 0.988 | FDR: 0.012

NPV: 0.760 | FOR: 0.240

Elapsed Time: 100.45s = 1.67m

* 1. Potsdam

Predict: 100%|██████████| 80/80 [01:40<00:00, 1.25s/it]

Results:

accuracy: 47.084 %

f1: 0.299

recall: 0.342 (or sensitivity)

precision: 0.266

specificity: 0.534

iou: 0.176 (or Jaccard index)

TPR: 0.342 | FNR: 0.658

TNR: 0.534 | FPR: 0.466

PPV: 0.266 | FDR: 0.734

NPV: 0.623 | FOR: 0.377

Elapsed Time: 100.48s = 1.67m

* 1. Vaihingen

Predict: 100%|██████████| 80/80 [01:43<00:00, 1.29s/it]

Results:

accuracy: 27.224 %

f1: 0.376

recall: 0.664 (or sensitivity)

precision: 0.262

specificity: 0.079

iou: 0.231 (or Jaccard index)

TPR: 0.664 | FNR: 0.336

TNR: 0.079 | FPR: 0.921

PPV: 0.262 | FDR: 0.738

NPV: 0.324 | FOR: 0.676

Elapsed Time: 103.64s = 1.73m

* 1. Mapillary Vistas

Predict: 100%|██████████| 80/80 [02:58<00:00, 2.23s/it]

Results:

accuracy: 33.058 %

f1: 0.496

recall: 1.000 (or sensitivity)

precision: 0.330

specificity: 0.001

iou: 0.330 (or Jaccard index)

TPR: 1.000 | FNR: 0.000

TNR: 0.001 | FPR: 0.999

PPV: 0.330 | FDR: 0.670

NPV: 0.999 | FOR: 0.001

Elapsed Time: 178.43s = 2.97m

1. **PSPNet**
   1. LoveDa

Predict: 100%|██████████| 80/80 [01:49<00:00, 1.37s/it]

Results:

accuracy: 79.198 %

f1: 0.544

recall: 0.376 (or sensitivity)

precision: 0.984

specificity: 0.997

iou: 0.373 (or Jaccard index)

TPR: 0.376 | FNR: 0.624

TNR: 0.997 | FPR: 0.003

PPV: 0.984 | FDR: 0.016

NPV: 0.764 | FOR: 0.236

Elapsed Time: 110.37s = 1.84m

1. **HRNet**
   1. LoveDa

Predict: 100%|██████████| 80/80 [01:28<00:00, 1.11s/it]

Results:

accuracy: 78.711 %

f1: 0.527

recall: 0.360 (or sensitivity)

precision: 0.985

specificity: 0.997

iou: 0.358 (or Jaccard index)

TPR: 0.360 | FNR: 0.640

TNR: 0.997 | FPR: 0.003

PPV: 0.985 | FDR: 0.015

NPV: 0.760 | FOR: 0.240

Elapsed Time: 88.94s = 1.48m