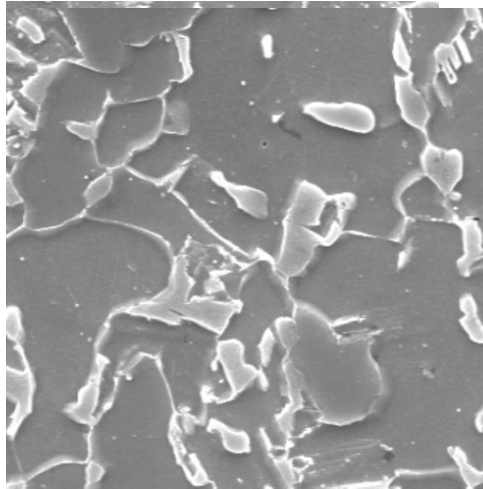
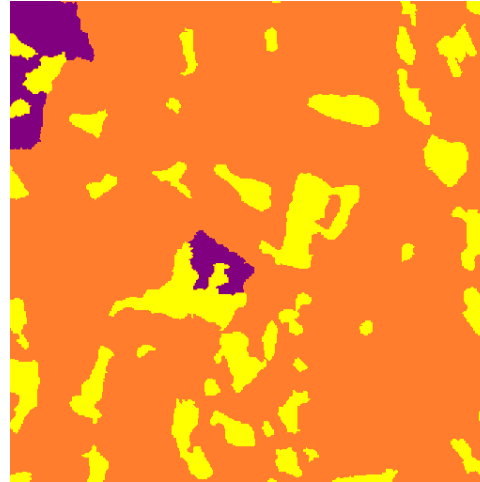


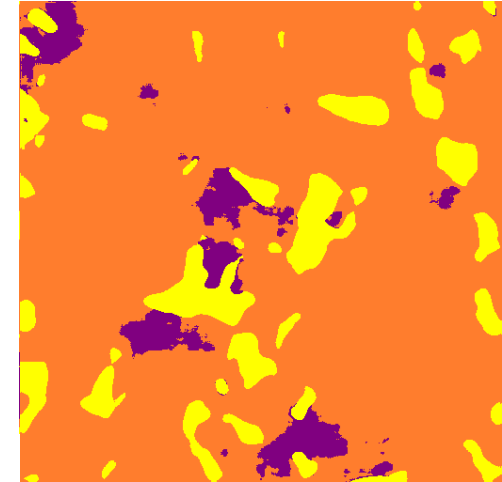
Model Output [Model 7]



Input Test Image



Input Label Image



Output Test Image

Validation mIOU → 0.1734

Validation Acc → 56.87

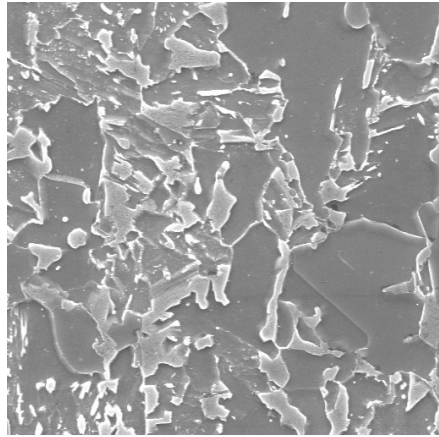
Test Accuracy → 82.99

Dice Coefficient → 0.81350676 (avg of 48 test images)

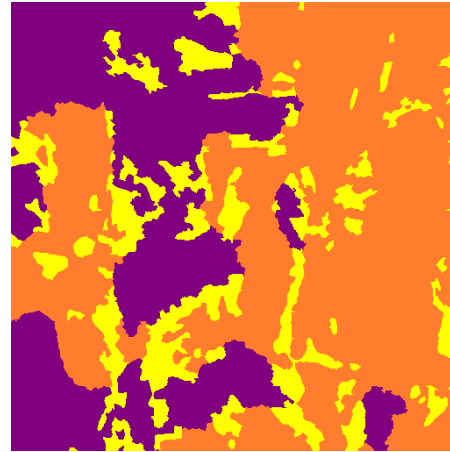
Traning mIoU → -

Training Acc → 91.68

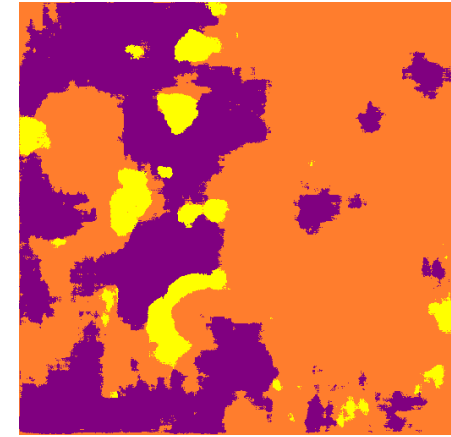
Model Output [Model 8][after 200 iter]



Input Test Image



Input Label Image



Output Test Image

Validation mIOU → 0.3728

Validation Acc → 70.32

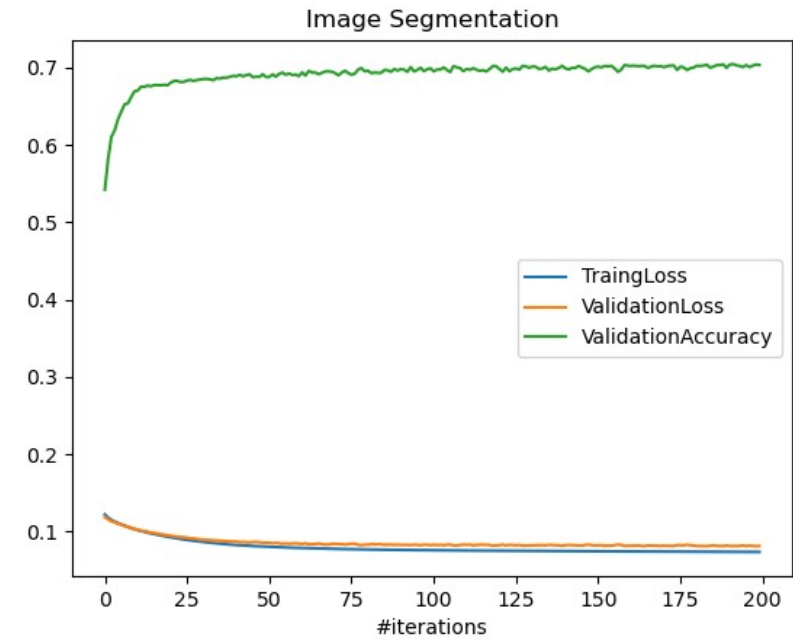
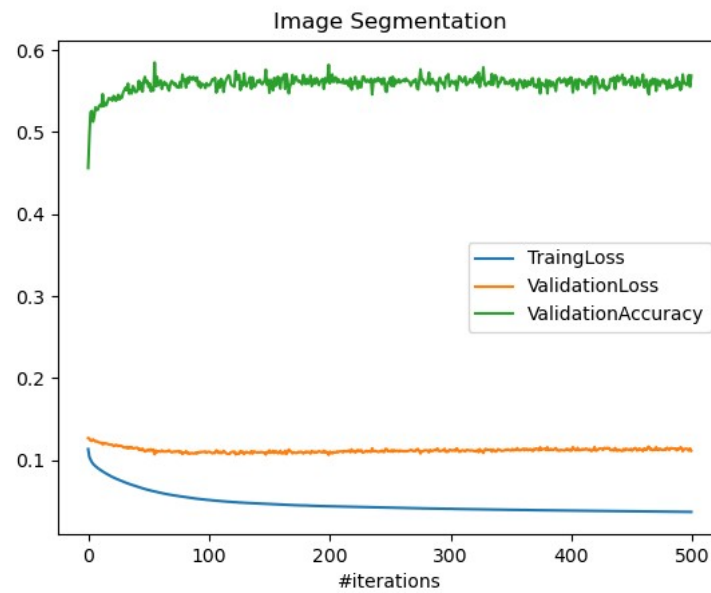
Test Accuracy → 61.79

Dice Coefficient → 0.602

Traning mIoU → -

Training Acc → 78.54

Model Performance



Testing on other type of steel data

	x3000	x5000	typeA	typeB	typeC
Model 6	58.85	28.82	46.29	73.61	34.48
Model 7	75.81	83.29	74.83	55.9	69.94
Model 8	70.01	78.75	47.71	7.46	40.48

Observation

- Magnification, sliding window, random Intensity, random gamma, random noise, horizontal and vertical flip, rotation up to 10 degrees were used was using to generate images.
- 200 iterations took 33 hours.
- 13920 augmented images of size 800*800
- 10000 used for Training, 3000 for validation, 920 for testing