

ME23MTECH12001

Number of images: 1000
Number of labels: 1000
Valid image-label pairs: 1000
Training samples: 800, Validation samples: 200

Total params: 8,051,265 (30.71 MB)
Trainable params: 5,793,281 (22.10 MB)
Non-trainable params: 2,257,984 (8.61 MB)

Epoch 1/2

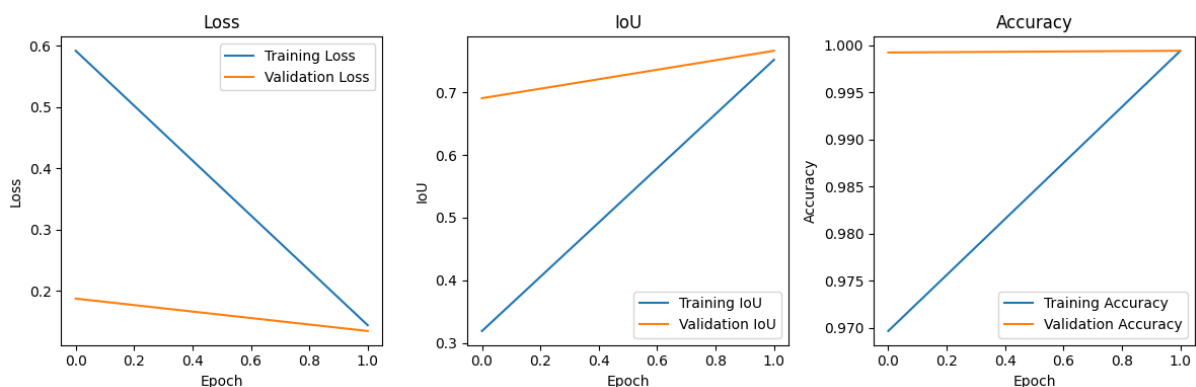
50/50 ————— **0s** 15s/step - binary_accuracy:
0.8902 - iou_metric: 0.1078 - loss: 0.8487

50/50 ————— **825s** 16s/step - binary_accuracy:
0.8918 - iou_metric: 0.1120 - loss: 0.8436 - val_binary_accuracy: 0.9992 -
val_iou_metric: 0.6904 - val_loss: 0.1871 - learning_rate: 1.0000e-04

Epoch 2/2

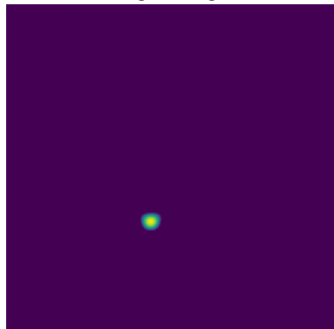
50/50 ————— **0s** 15s/step - binary_accuracy:
0.9994 - iou_metric: 0.7310 - loss: 0.1580

50/50 ————— **890s** 17s/step - binary_accuracy:
0.9994 - iou_metric: 0.7314 - loss: 0.1577 - val_binary_accuracy: 0.9994 -
val_iou_metric: 0.7660 - val_loss: 0.1341 - learning_rate: 1.0000e-04

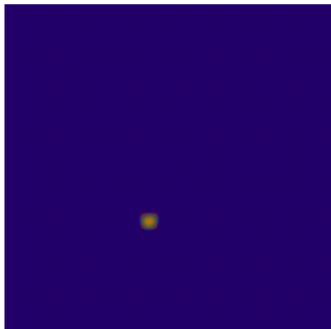


binary_accuracy: 0.9994 - iou_metric: 0.7617 - loss: 0.1368
Validation Loss: 0.1341
Validation IoU: 0.7660
Validation Accuracy: 0.9994

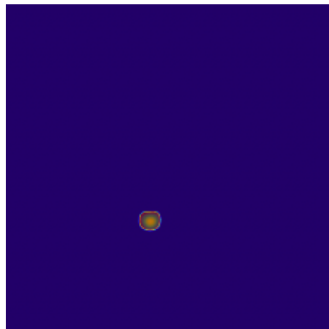
Original Image



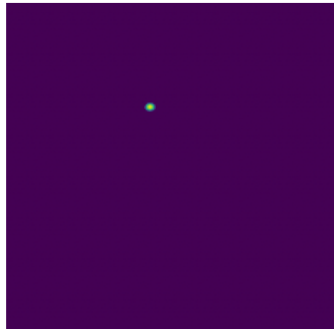
True Defect



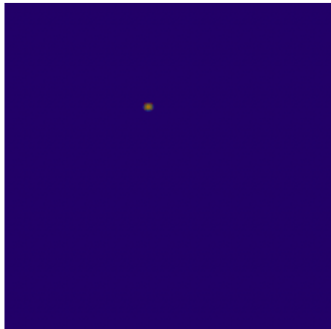
Predicted Defect



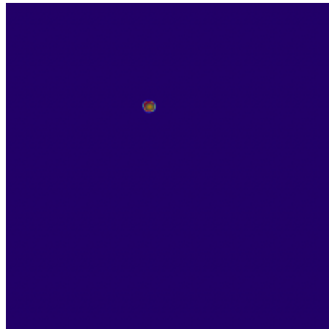
Original Image



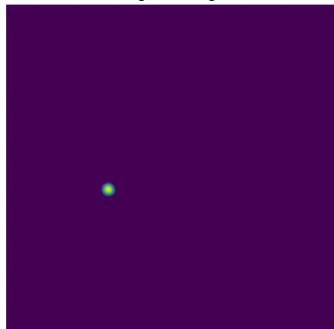
True Defect



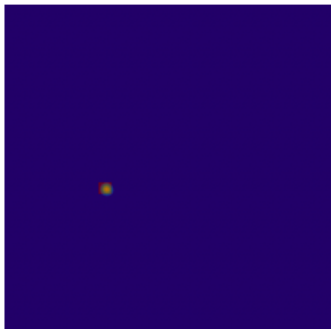
Predicted Defect



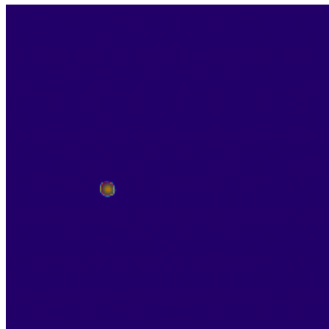
Original Image



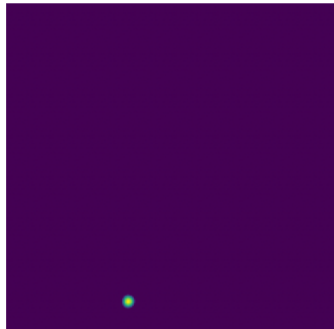
True Defect



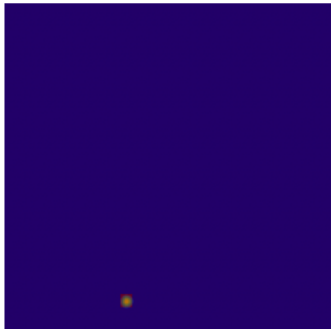
Predicted Defect



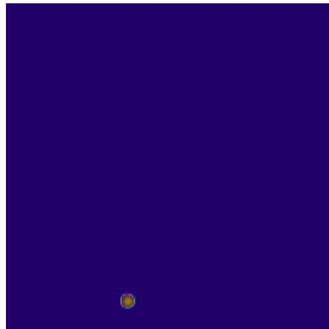
Original Image



True Defect



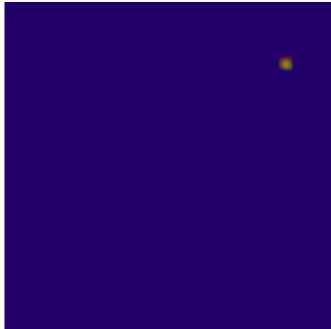
Predicted Defect



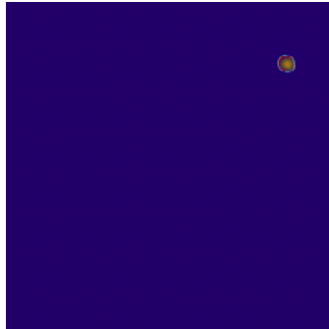
Original Image

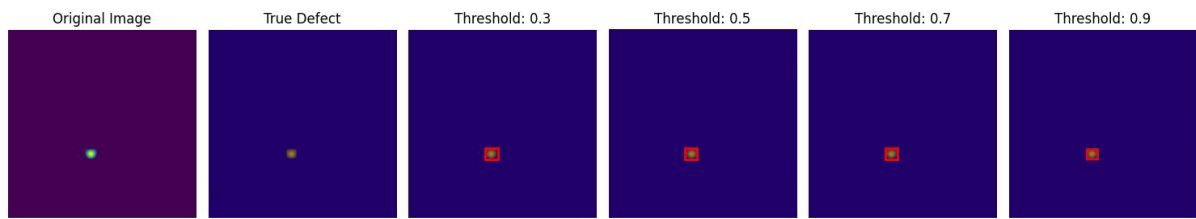


True Defect



Predicted Defect





Ultrasonic Phased Array Defect Detection Model Analysis:

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Final Validation IoU: 0.7660

Final Validation Accuracy: 0.9994