Robustness of Deep Learning in MRI Reconstruction Supporting Information

1 Performance vs Epochs

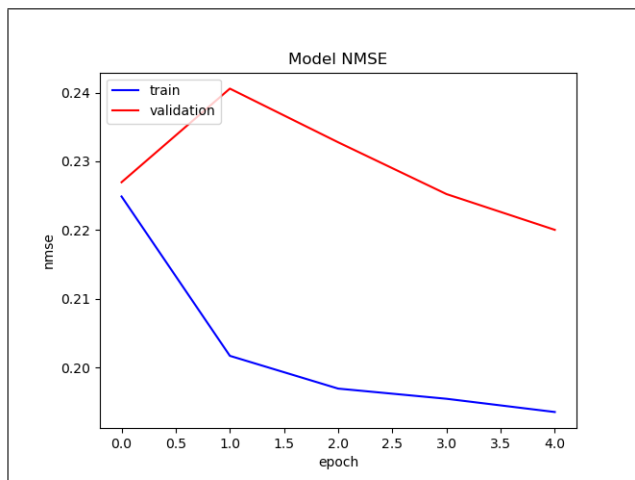Details of performance metrics can be found in the final report.
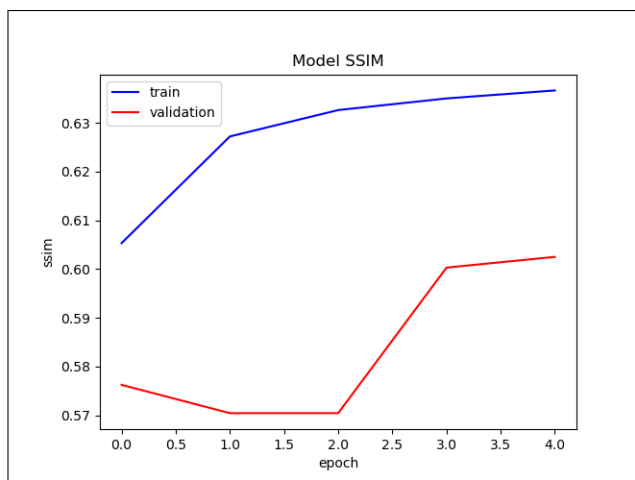

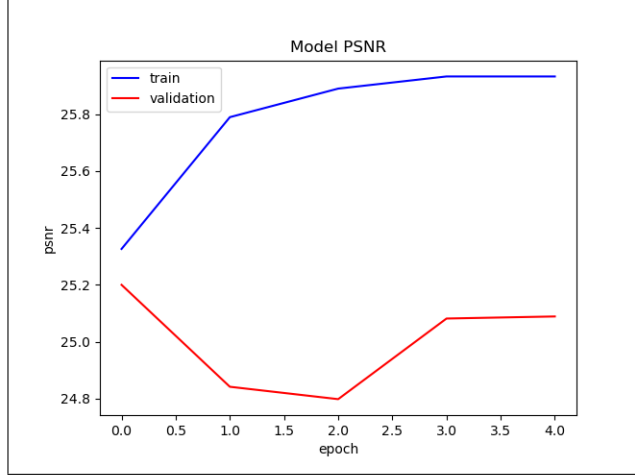Figure 1: NMSE vs Epochs

Figure 2: SSIM vs Epochs

Figure 3: PSNR vs Epochs

2 Visualization of Adversarial Training Results of Different Images

Detailed explanation can be found in the final report.

In Figure 4, Figure 5, Figure 6 and Figure 7. top row represent results with perturbation radius $\epsilon = 1 \times 10^3$, while bottom row represent results with perturbation radius $\epsilon = 5 \times 10^3$: (a)(e) Reconstruction from standard input by using U-Net with adversarial training. (b)(f) Visualization of perturbations. (c)(g).Ground-truth image with perturbations. (d)(h) Reconstruction from input with perturbations by using U-Net with adversarial training. (e)(i) Reconstruction from input with perturbations by using U-Net without adversarial training. Red circles represent the noise in the reconstruction image.
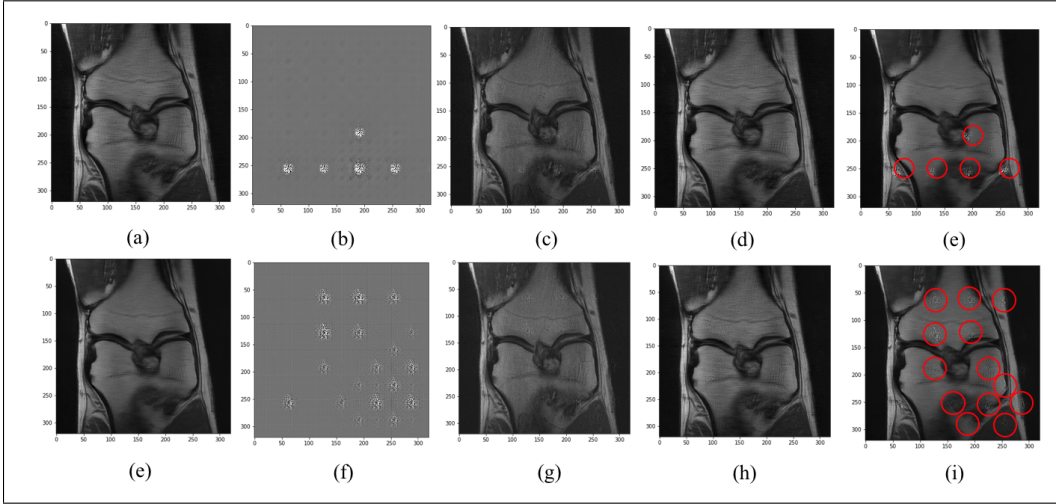

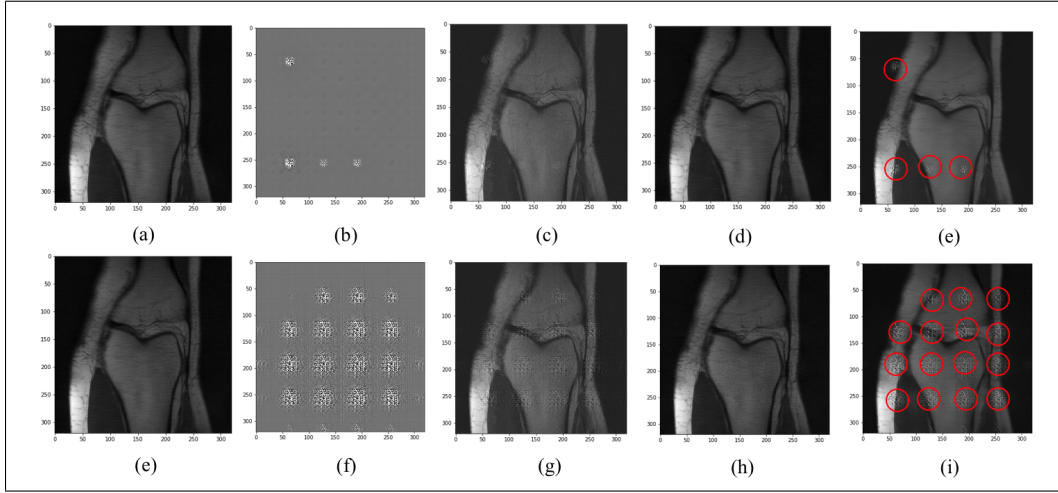Figure 4: Results visualization of validation data 1.

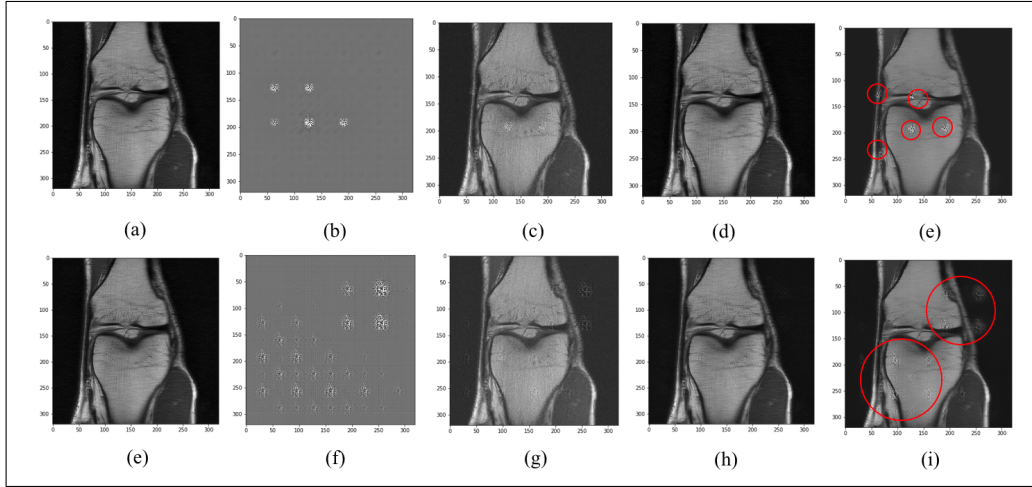Figure 5: Results visualization of validation data 2.
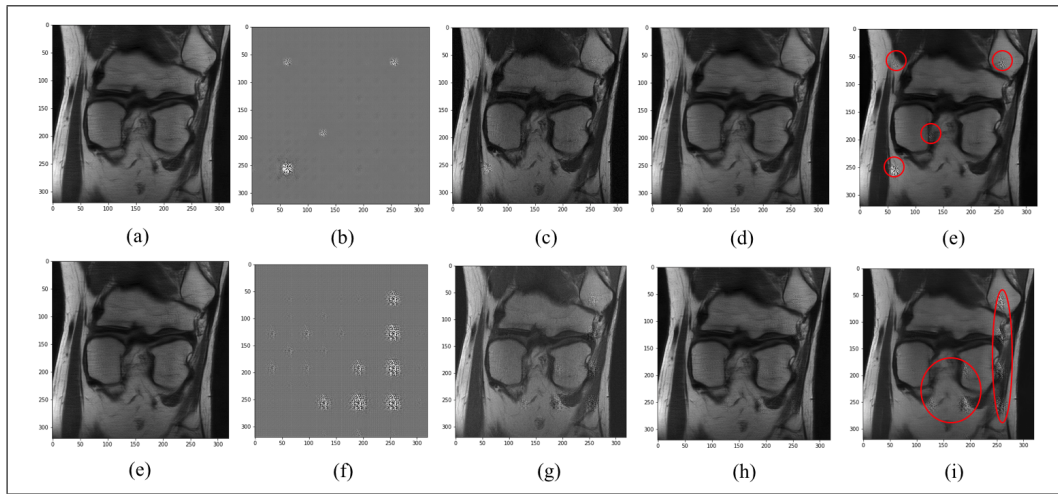

Figure 6: Results visualization of validation data 3.

Figure 7: Results visualization of validation data 4.