

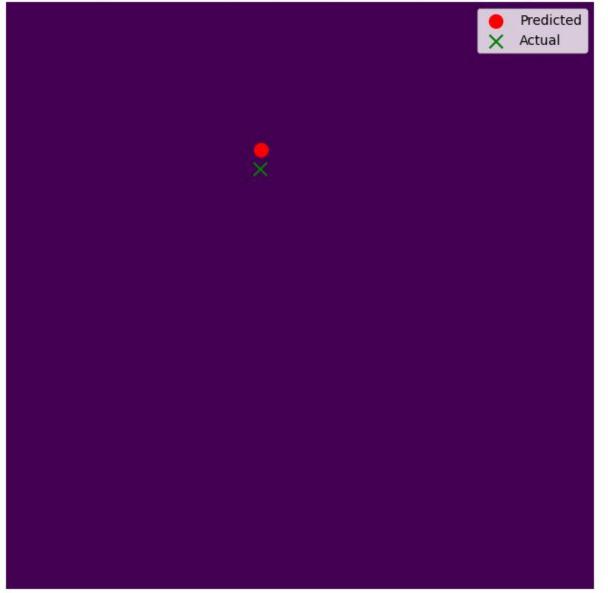
Denoising with Machine Learning

Bhagawat Chapagain, Aditya Champaneri

Model Enhancements

- Added an Extra Hidden Layer to training → better capture patterns.
- Fine-tuned for better convergence and stability.
- 5 Epochs → Balances time and model performance

Image 1: Predicted (443.7, 257.7) vs Actual (441.0, 291.0)

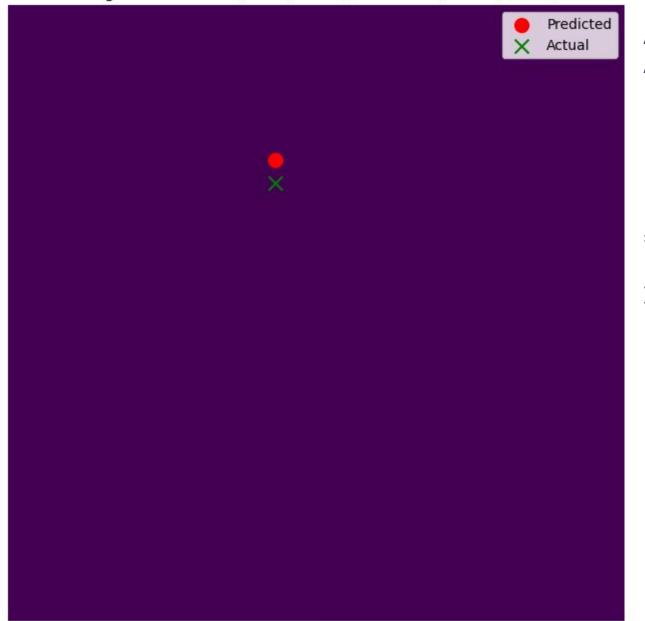


Error <= MaxError = dist(1024, ,1024)

Error = sqrt((x_pred-x_true)^2+(y_pred-y_true)^2)

Image1 Accuracy = 0.976929757278

Image 2: Predicted (443.7, 257.7) vs Actual (443.0, 296.0)

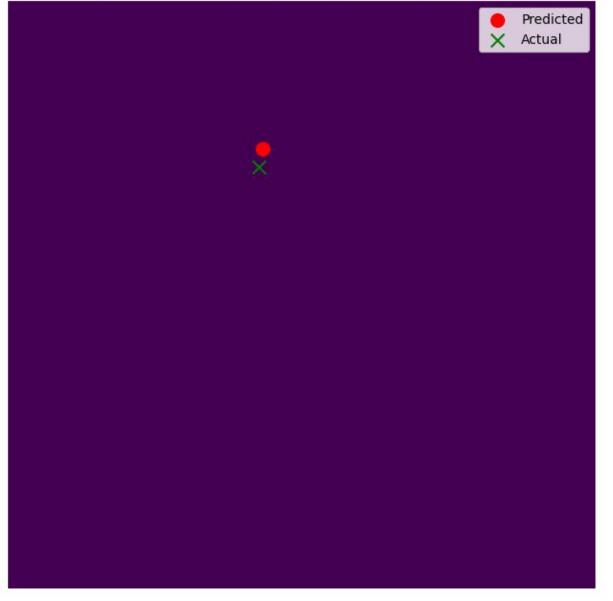


Error <= MaxError = dist(1024, ,1024)

Error = sqrt((x_pred-x_true)^2+(y_pred-y_true)^2)

Image1 Accuracy = 0.973548132217

Image 3: Predicted (443.7, 257.7) vs Actual (437.0, 288.0)

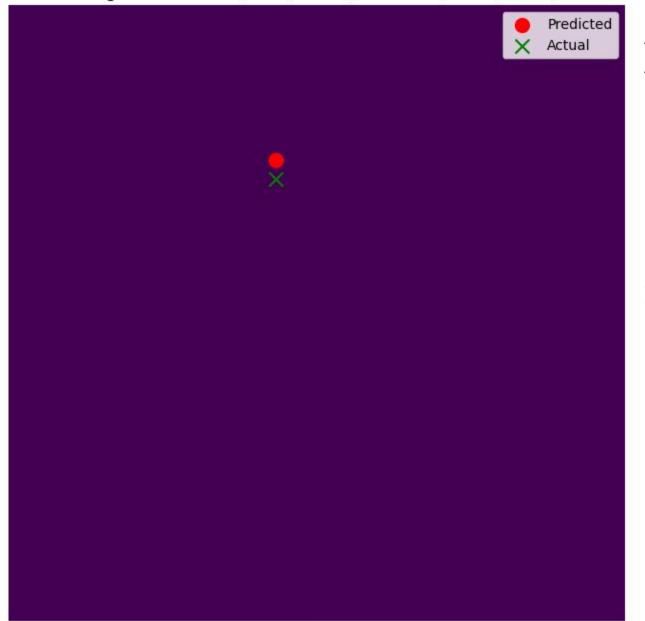


Error <= MaxError = dist(1024,1024)

Error = sqrt((x_pred-x_true)^2+(y_pred-y_true)^2)

Image1 Accuracy(%) = 0.978571405865

Image 4: Predicted (443.7, 257.7) vs Actual (444.0, 289.0)



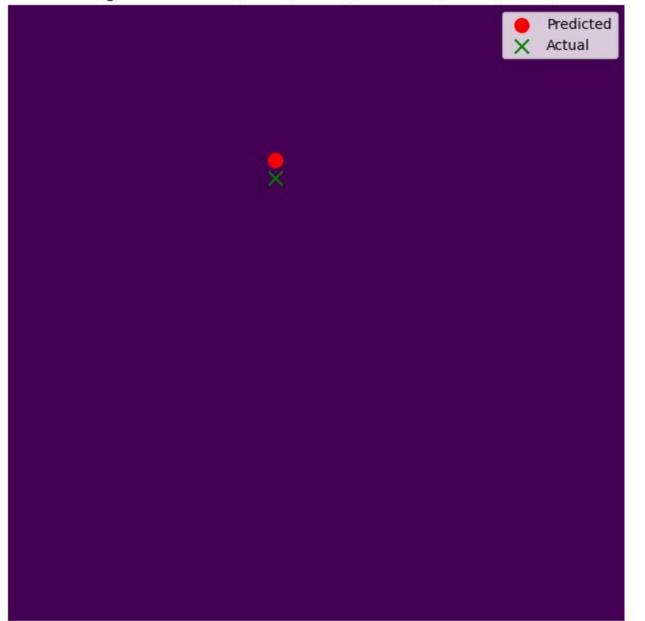
Error <= MaxError = dist(1024,1024)

Error

=sqrt((x_pred-x_true)^2+(y_pred-y_true)^2)

Image1 Accuracy(%) = 0.978385294106

Image 5: Predicted (443.7, 257.7) vs Actual (443.0, 287.0)



Error <= MaxError = dist(1024,1024)

Error

=sqrt((x_pred-x_true)^2+(y_pred-y_true)^2)

Image1 Accuracy(%) = 0.97976158153