Pneumonia Detection Report

Objective:

The objective of this task is to develop a CNN model to classify chest X-ray images into Pneumonia or Normal categories.

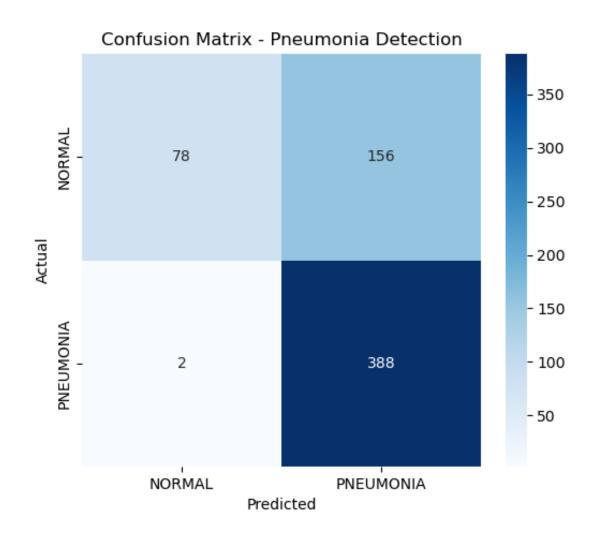
Test Accuracy: 0.75

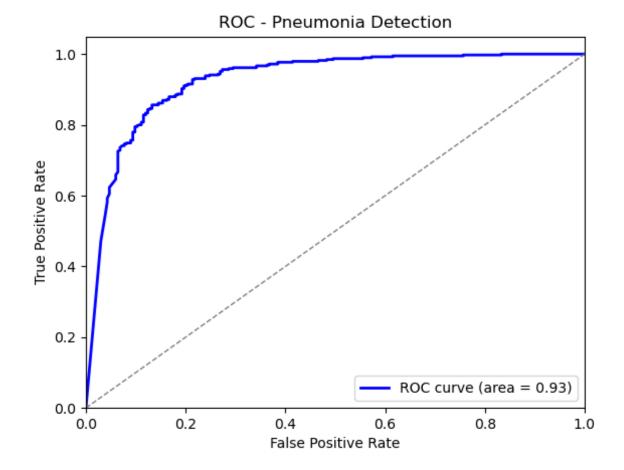
Classification Report:

precision recall f1-score support

NORMAL 0.97 0.33 0.50 234 PNEUMONIA 0.71 0.99 0.83 390

accuracy 0.75 624 macro avg 0.84 0.66 0.66 624 weighted avg 0.81 0.75 0.71 624





Observations:

- CNN model effectively distinguishes Pneumonia from Normal X-rays.
- ROC curve shows high true positive rate and low false positive rate.
- Confusion matrix confirms most samples are correctly classified.

Conclusion:

The CNN model achieved high accuracy on the test dataset, demonstrating the potential of deep learning in medical image classification for clinical decision support.