



# Summer Internship 2024

<<Interpret-CXR >>



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# My Approach 1

## CNNs & RNNs

The approach involves building a model that uses a CNN to extract features from CXR images and an RNN to process these features alongside text data, combining both to generate relevant findings and impressions.

# 1. Data Preprocessing

- Resize the images to a standard size suitable for your model.
- Normalize the pixel values of the images
- Encode the text data (findings and impressions)

# 2. Model Architecture

- CNN – To extract features from CXRs
- Pre Trained Model like VGG, ResNet or Inception for fine tuning
- RNN for Text Processing likely LSTM / GRU
- Combine both
- Categorical Cross-Entropy Loss Function

### 3. Training

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Split dataset  
Define appropriate Loss Functions  
Train Model

### 4. Evaluation

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Precision, Recall, F1 Score , Accuracy  
Generate Predictions

### 5. Iterative Improvements

### 6. Deployment

**THANK YOU**