Literature Review:

S.No.	Author(s) & Year	Title of the Study	Methodology	Dataset / Source	Key Findings	Limitations / Future Scope
1	A. Gupta et al., 2024	A Novel Lightweight CNN for Chest X-Ray Based Lung Disease Identification	CNN (for images only)	Public Chest X-Ray datasets (NIH CXR-14, Kaggle Pneumonia).	Achieved ~92% accuracy;	Only image data used; lacks patient context or textual understanding.
2	S. Kumar et al., 2023	Deep Learning Enabled Multimodal Data Fusion for Lung Disease Diagnosis	CNN (for images) + MLP (for clinical data)	Hospital dataset with CT scans and patient records.	Reached ~93% accuracy;	Simple fusion without attention or semantic relationships; can add transformers.
3	R. Patel et al., 2023	Multimodal Approach for Lung Disease Classification (Fusing Chest X-Ray Images and Clinical Texts)	CNN for X-ray features + Bi-LSTM for clinical text.	COVIDx and other chest X-ray datasets with clinical text reports.	Reported AUC = 0.89;	No attention mechanism; LSTM can be replaced by transformer for better context.
4	J. Lee et al., 2025	Multimodal Feature Distinguishing and Deep Learning Approach to Detect Lung Disease from MRI Images	Transformer-based model	MRI lung dataset (Nature Scientific Reports 2025).	Achieved ~94% accuracy (AUC ≈ 0.92);	Limited to MRI and two modalities; can add CT and textual data for improvement.
5	Bin Zhong et al., 2024	ILDIM-MFAM: Interstitial Lung Disease Identification Model Using Multi-Modal Fusion Attention Mechanism	CNN for CT images + Bi-LSTM for physiological data + Self-Attention for text, fused via Transformer-based MFAM.	ILD dataset containing CT images, physiological readings, and clinical text.	AUC = 0.96 with strong precision and recall;	Limited dataset size; lacks visual explainability; can use transformer encoders for all modalities.