AI Healthcare Diagnosis Report

Generated by: AI Pneumonia Triage System
Report type: Chest X■ray + Clinical Fusion

1. Patient & Study Information

Age	72
Fever days	9
SPO2	93.0
Cough	Yes
Smoking	No
Diabetes	Yes

2. Model Outputs

Component	Score
Image Model Prediction	0.980
Clinical Model Prediction	1.000
Fusion Prediction	0.983

3. AI Risk Assessment Summary

The image model probability is 0.980 and the clinical model probability is 1.000. Combining both sources, the fused pneumonia risk is 0.983 (98.3%), which falls in the VERY HIGH risk band. The AI system estimates a high probability of pneumonia. This is driven by the combination of abnormal chest X■ray findings and high■risk clinical features such as reduced oxygen saturation, prolonged fever and the presence of cough. Older age, smoking history or diabetes further increase the likelihood of true infection. Immediate clinical assessment and correlation with laboratory and radiology reports are recommended.

4. Methodology (Image + Clinical Fusion)

A convolutional neural network analyzes the chest X■ray to detect pulmonary opacities and other pneumonia■related patterns. A separate clinical model evaluates age, duration of fever, oxygen saturation (SpO2), presence of cough, smoking status and diabetes. A calibrated fusion layer combines these signals to produce a single pneumonia risk score between 0 and 1.

5. Final Impression (AI■assisted)

Pneumonia: Likely present

The AI system estimates that this patient is likely to have pneumonia. Typical associated symptoms include fever, cough (often productive), shortness of breath, pleuritic chest pain, fatigue, and reduced oxygen saturation (SpO2).

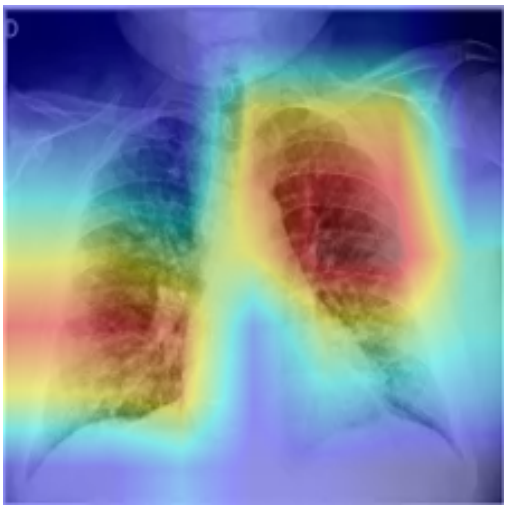
6. Important Disclaimer

This document is generated by an artificial intelligence decision■support system and does not replace a formal radiology report or clinical evaluation. All findings must be reviewed and interpreted by a qualified healthcare professional in the context of the full clinical picture. Urgent or worsening symptoms require prompt in■person medical assessment.

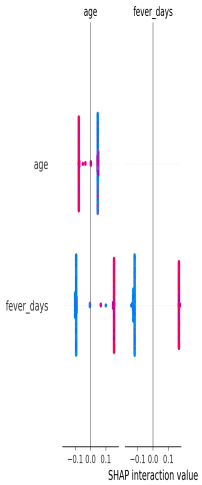
7. Imaging & Explanation Figures

Original X■ray

Grad■CAM overlay



SHAP summary



SHAP waterfall