AI Healthcare Diagnosis Report

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

1. Patient & Study Information

Age	70
Fever days	10
SPO2	95.0
Cough	Yes
Smoking	Yes
Diabetes	No

2. Model Outputs

Component	Score
Image Model Prediction	0.279
Clinical Model Prediction	0.923
Fusion Prediction	0.375

3. AI Risk Assessment Summary

The image model probability is 0.279 and the clinical model probability is 0.923. Combining both sources, the fused pneumonia risk is 0.375 (37.5%), which falls in the MODERATE risk band. The fused risk score falls in the moderate range. Subtle opacities on the X■ray together with clinical features such as several days of fever, mild desaturation or persistent cough suggest early or evolving infection. Close monitoring and repeat assessment may be appropriate depending on the clinical context.

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: Unlikely / low probability

Based on the current chest X-ray and clinical features, the probability of pneumonia is low. If the patient develops worsening cough, persistent high fever, breathing difficulty or very low SpO2, clinical re■evaluation is recommended.

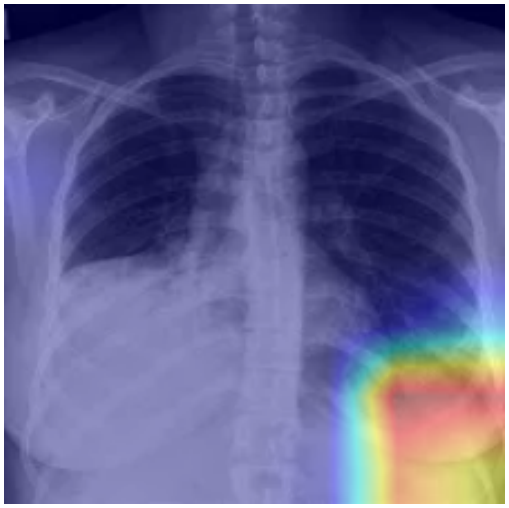
6. Important Disclaimer

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.

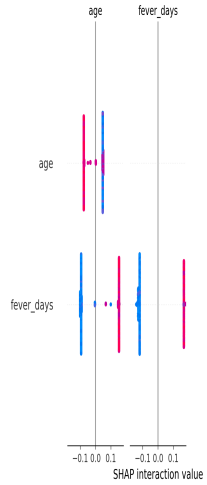
7. Imaging & Explanation Figures

Original X■ray

Grad■CAM overlay



SHAP summary



SHAP waterfall