

Pneumonia Detection System using Deep Learning and Streamlit

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Abstract: *This paper presents the design and implementation of a deep learning-based pneumonia detection system using convolutional neural networks (CNNs) and a user-friendly interface developed with Streamlit. The platform allows medical professionals and researchers to upload chest X-ray images and receive real-time predictions about the presence or absence of pneumonia. The model is trained on publicly available datasets and evaluated using standard classification metrics. The system is built with a focus on accessibility, explainability, and ease of deployment. Although advanced features such as multi-disease classification and model explainability using Grad-CAM are not included in the current version, this implementation provides a solid foundation for future healthcare-oriented AI systems*

Keywords: Pneumonia Detection, Deep Learning, CNN, Streamlit, Medical Imaging

