

# Pneumonia Detection using Deep Learning

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**Abstract:** The lungs are impacted by pneumonia, a lung condition. The cause is streptococcus pneumonia, which can be deadly if it is not identified or treated. The most common technique to diagnose pneumonia is to have a professional radiologist carefully analyse chest x-ray pictures, however this method takes more time and is typically less accurate. Computer-aided diagnosis is a solution that professionals and medical personnel may use to address this issue. Computer-aided diagnostics is a term used to describe a technology that helps physicians make quick, precise decisions. Convolutional neural networks (CNNs) have received a lot of interest for the classification of illnesses as a result of the success of deep learning algorithms in evaluating medical images. We evaluated the performance of many pre-trained CNN models before selecting an ensemble of the top models to provide the final findings. Combining different pre-trained CNN models can increase detection accuracy, with the best accuracy being 94.3, according to the study.

**Keywords:** CNN, Image Processing, Kaggle.

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