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COVID-19 Analysis with Deep Learning Model Using Chest X-Rays Images

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Abstract : The COVID-19 disease is a highly contagious viral infection with major worldwide health implications. The global economy suffers as a result of COVID. The spread of this pandemic disease can be slowed if positive patients are found early. COVID-19 disease prediction is beneficial for identifying patients' health problems that are at risk for COVID. Deep learning and machine learning algorithms for COVID prediction using X-rays have the potential to be extremely useful in solving the scarcity of doctors and clinicians in remote places. In this paper, a convolutional neural network (CNN) with deep layers is presented for recognizing COVID-19 patients using real-world datasets. We gathered around 6000 X-ray scan images from various sources and split them into two categories: normal and COVID-impacted. Our model examines chest X-ray images to recognize such patients. Because X-rays are commonly available and affordable, our findings show that X-ray analysis is effective in COVID diagnosis. The predictions performed well, with an average accuracy of 99% on training photographs and 88% on X-ray test images.

Keywords : deep CNN, COVID–19 analysis, feature extraction, feature map, accuracy
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