

ROBUST LUNG CONSOLIDATION DETECTION SYSTEM

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Abstract

Consolidation is a lung pathology among the vulnerable top diseases which cause many deaths around the world after pneumonia. But the complication is everyone cannot identify just analyzing a chest x-ray. A large amount of chest x-ray data go through the medical personnel, which is hard to interpret for the radiologists and doctors. It also leads to fatigue based diagnostic mistakes among the medical professional. It is not easy to find diagnostics expertise in some continentals of the world where medical professionals are hard to find. Recently in the medical domain, deep learning-based methods accomplish vast performance at a professional level for medical image diagnosing projects. This project aims to build a deep learning algorithm on the detection of Lung consolidation in chest x-rays and investigate to achieve a state of the art performance. The architecture is composed of a deep neural classification model, which learned by model the underlying content of the structure of the Consolidation and Normal chest x-ray images. The efficiency of the approach will be demonstrated by Quantitative and Qualitative Methods. The final output will be a Web application based Consolidation detection system. This approach will reduce the medical domain workload and effectively maneuver the clinical process.