



NARASARAOPETA ENGINEERING COLLEGE

(Autonomous)

DEPARTMENT OF CSE (ARTIFICIAL INTELLIGENCE)

Batch Number	BB10
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Guide	M. RAMAKRISHNA REDDY
Title	PNEUMONIA DETECTION USING CNN
Domain/Technology	DEEP LEARNING
Dataset Link	https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8869364
Base Paper Link	https://www.kaggle.com/datasets/paultimothymooney/chest-xray-pneumonia
Software Requirements	Browser : Any Latest browser like Chrome Operating System : Windows 10 Language : Python Platform : Anaconda
Hardware Requirements	Processor : Intel(R) Core™i5-1035G1 CPU @ 2.50GHz RAM : 8GB(7.77 GB usable) System Type : 64-bit operating system, x64-based processor
Abstract	<p>Pneumonia is a potentially fatal bacterial infection caused by Streptococcus pneumoniae that affects one or both lungs in humans. Pneumonia, an interstitial lung disease, is the greatest cause of death in children under the age of five. According to a UNICEF study, it accounted for approximately 16% of all child deaths under the age of five, killing approximately 880,000 children in 2016. The majority of the children affected were under the age of two. Early detection of pneumonia in children can aid in the recovery process. This project presents convolutional neural network models for accurately detecting pneumonic lungs from chest X-rays, which can be used by medical practitioners to treat pneumonia in the real world. Experimentation was carried out using the Chest X-Ray Images (Pneumonia) dataset from Kaggle. Pneumonia is responsible for one out of every three deaths in India, according to the World Health Organization (WHO). Chest X-rays used to diagnose pneumonia must be evaluated by expert radiotherapists. As a result, developing an autonomous system for detecting pneumonia would be advantageous for quickly treating the disease, particularly in remote areas. Convolutional Neural Networks (CNNs) have received a lot of attention for illness categorisation due to the success of deep learning algorithms in evaluating medical imagery. Furthermore, image classification tasks benefit greatly from features obtained from large-scale datasets by pre-trained CNN models. The functionality of pre-trained CNN models used as feature-extractors followed by different classifiers for the classification of abnormal and normal chest X-Rays is evaluated in this paper. We use analysis to get the best CNN model for the job.</p>

Signature of the Guide

Signature of the Project coordinator

Signature of the HOD