



# **PNEUMONIA PREDICTION SYSTEM**

A Dissertation By

**Arjune Shankar**

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**Department of Computing  
Informatics Institute of Technology, Sri Lanka  
in collaboration with  
University of Westminster, UK**

## Abstract

Pneumonia is the leading cause of childhood death worldwide. In 2017 World Health Organization published pneumonia killed more than 800000 children worldwide and children under the Age of 5 are the very common victims of pneumonia. 15 percent of all deaths are among children are under the age of 5. According to one study a child dies every 20 seconds due to pneumonia. Over 90 percent of pneumonia cases resulting in dead occur in developing countries.

In 2018 World health organization data published the latest data which shows influenza and pneumonia deaths in Sri Lanka reached 4,864 or 3.83 percent of total deaths. The death rate is 21.48% per 100000 People. Pneumonia is mainly increasing deaths among children in Sri Lanka.

A chest x ray is often used to diagnose pneumonia, but the x-ray results depend on the expertise of the Radiographers and the accuracy to read an x-ray but Unfortunately sometimes things can go wrong due to human errors made, this will lead to experience a worsening of the medical condition. In some case you may need more dangerous complicated or expensive treatment as a result. A person may even die as a result of illness that can have been treated or preventable. Also, in reality this process is time consuming that needs a significant effort, if performed manually.

Therefore, the aim of this research is to develop a pneumonia detector that will help doctors and radiologist by predicting pneumonia and also reduce to the human errors made.

In order to train the machine learning algorithm to develop predictive data models Kaggle played a major role in the systems data source.

**Keywords:** Pneumonia Detector, machine learning