

Pneumonia Detection Challenge

Capstone Project - Interim Report

# Team Details

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# Summary of Problem statement, data and findings

Pneumonia is a form of acute respiratory infection that affects the lungs. The lungs are made up of small sacs called alveoli, which fill with air when a healthy person breathes. When an individual has pneumonia, the alveoli are filled with pus and fluid, which makes breathing painful and limits oxygen intake. Pneumonia is an infection in one or both lungs that bacteria, viruses, and fungi cause it. Pneumonia is the single largest infectious cause of death in children worldwide. Pneumonia killed 808 694 children under the age of 5 in 2017, accounting for 15% of all deaths of children under five years old. This is caused by a number of infectious agents. The most common are

* *Streptococcus pneumoniae* – the most common cause of bacterial pneumonia in children.
* *Haemophilus influenzae* type b (Hib) – the second most common cause of bacterial pneumonia
* Respiratory syncytial virus is the most common viral cause of pneumonia.
* In infants infected with HIV, *Pneumocystis jiroveci* is one of the most common causes of pneumonia, responsible for at least one quarter of all pneumonia deaths in HIV-infected infants.

In this project, we will build an algorithm to detect a visual signal for pneumonia in medical images to detect inflammation of the lungs.

# Summary of the Approach to EDA and Pre-processing

# Describe the stages

# Data Visualization

# Deciding Models and Model Building

# References