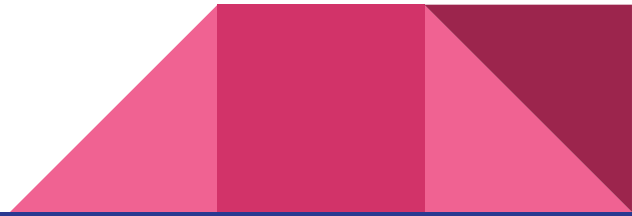
Pneumonia Detection Using AI

By Aiden Bull

Overview

- Project Objective
- Understanding the Data
- The Process
- Caveats
- Future Work



Objective:

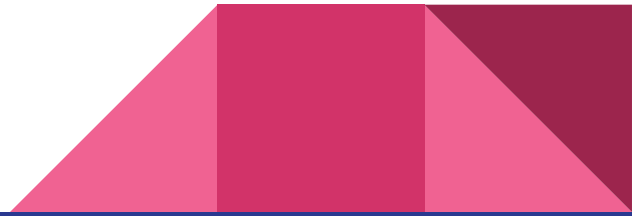
Pneumonia Detection From Chest X-Rays

The Data

- 5,863 X-Rays
- Pediatric patients ages 1-5
- Data from Guangzhou Women and Children’s Medical Center
- Data reviewed by experts before processing
- Data formatted on Kaggle
- Train/Validation/Test sets

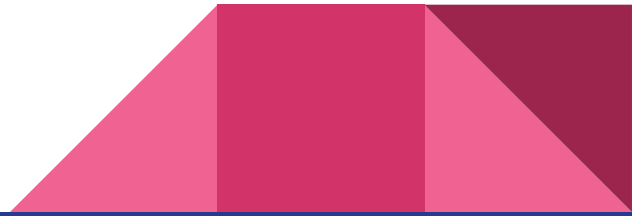
The Process

- Source Data
- Data Preprocessing
- Data Augmentation
- Iterative Modeling (Including Transfer Learning)
- Final Model Selection & Evaluation



Caveats

- Limited Data/Time/Resources
- Data only from pediatric patients
- Performance depends on quality of X-ray
- Difficult to compare to human performance



Future Work

- Gather more data for model
- Test effectiveness on poor quality data

The End

Any Questions?

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Github:

DivisiBULL/ML_Pneumonia_Detection: phase 4 final project (github.com)