Predictive model for Chest X-ray images

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Business Problem

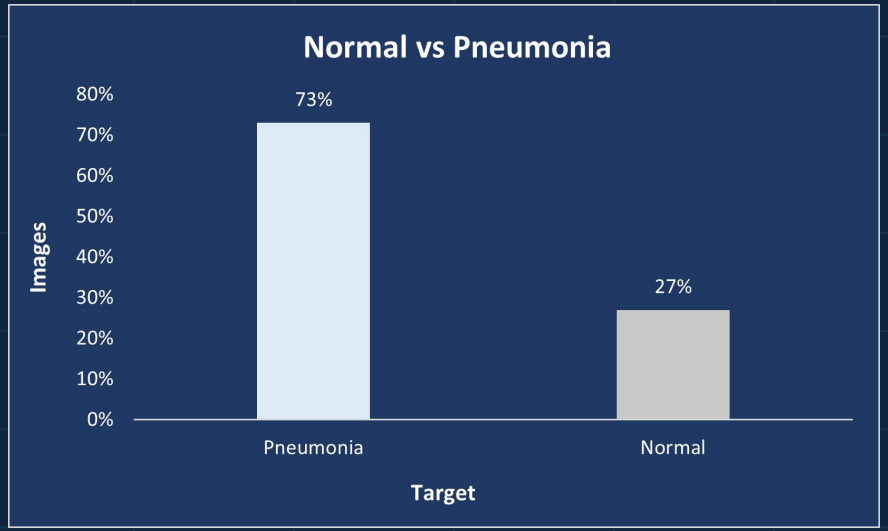
- Pneumonia
  - Infectious lung disease
- Critical to Newborn and Elderly people
- Limitation in diagnosis
- Image grading errors

Mission Statement

Create a model that diagnoses whether or not a patient has pneumonia based on X-Ray Images.

Data Understanding

- 5000+ Images
- Imbalanced Data



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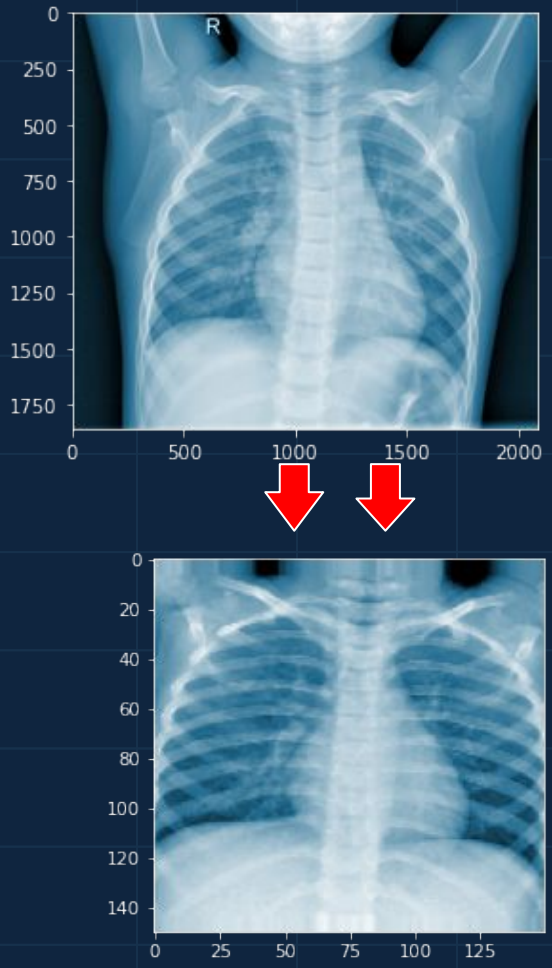
Data Preparation

- Data Augmentation
- Resizing
- Image color to grayscale



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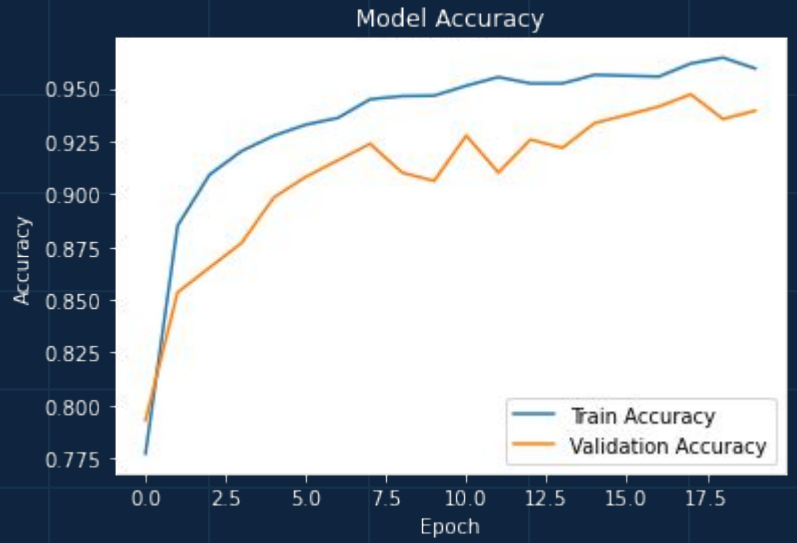
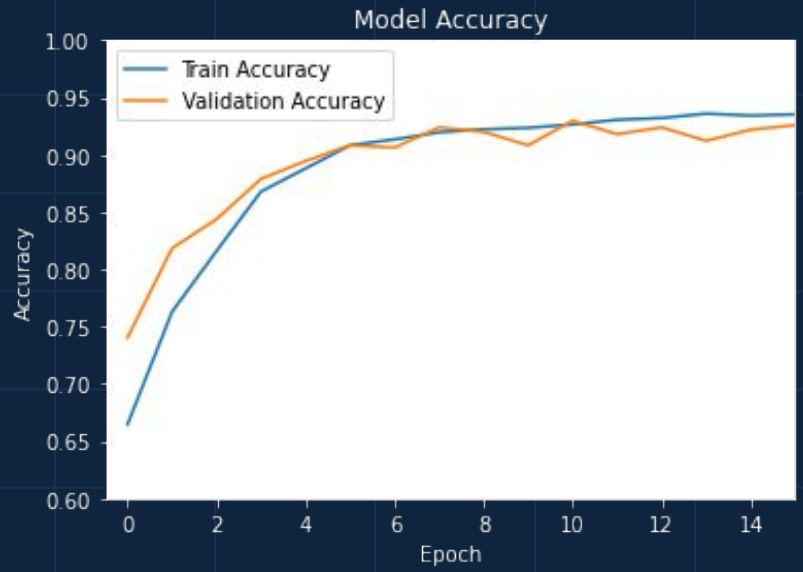
Model Processing

Before Tuning



After Tuning



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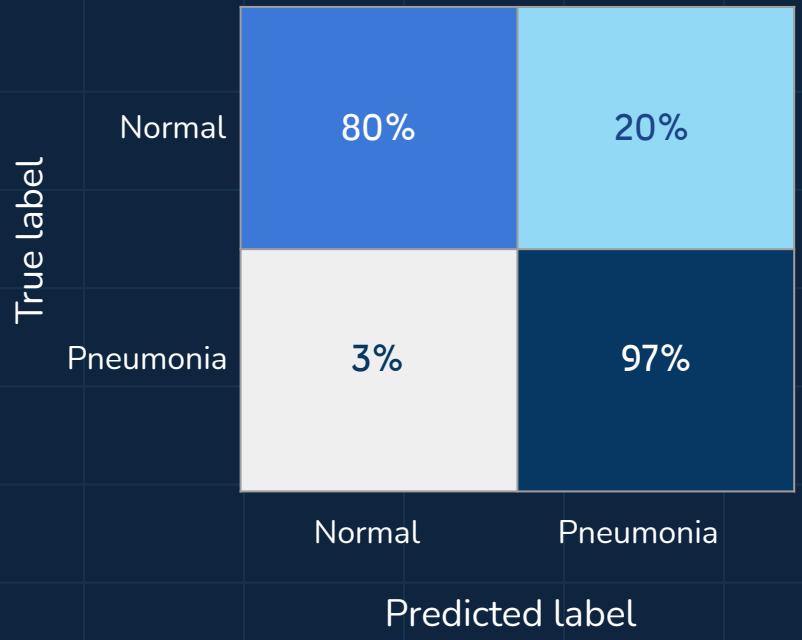
Results

- Image Classification
  - Neural Network (AI)
- Accuracy: 90%
- Detect 97% patient



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Business Recommendations

Model can be used:

- Predict X-Ray Images
- Identify high risk patients
- Reduce X-Ray grading errors

Next Steps

- Improve Precision
- Gather more images for dataset
- Apply model to Covid-19

Thanks!

Do you have any questions?

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