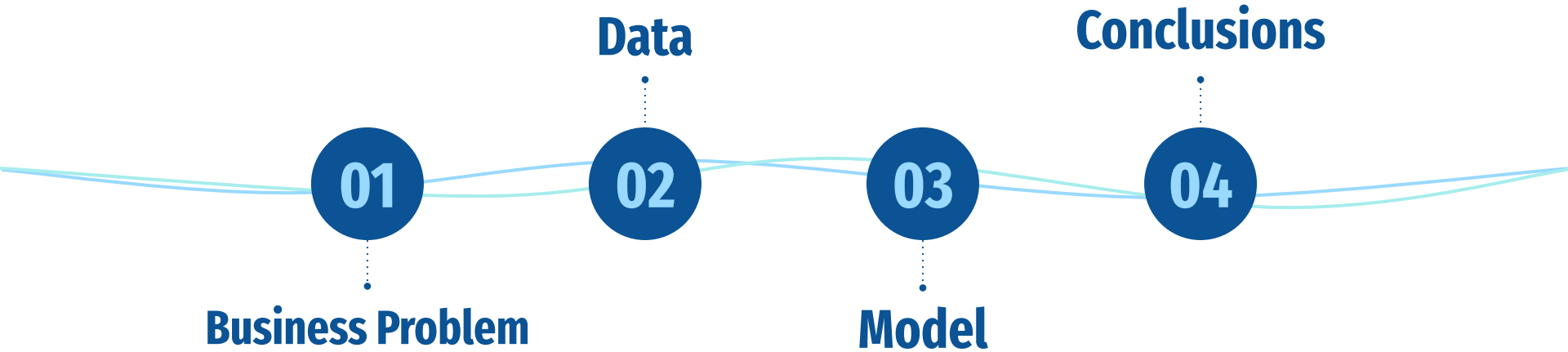


Baimax Industries

Presented By: Alison Park, Gideon Miles, Kevin Atkinson



Overview



Business Problem

- Shortage of Radiologist
- Time and cost to diagnose





800,000

Leading cause of death in young children

Data



Zhang Lab - UCSD, Guangzhou
Women and Children's Medical
Center



6000 training X-ray scans



Data Augmentation



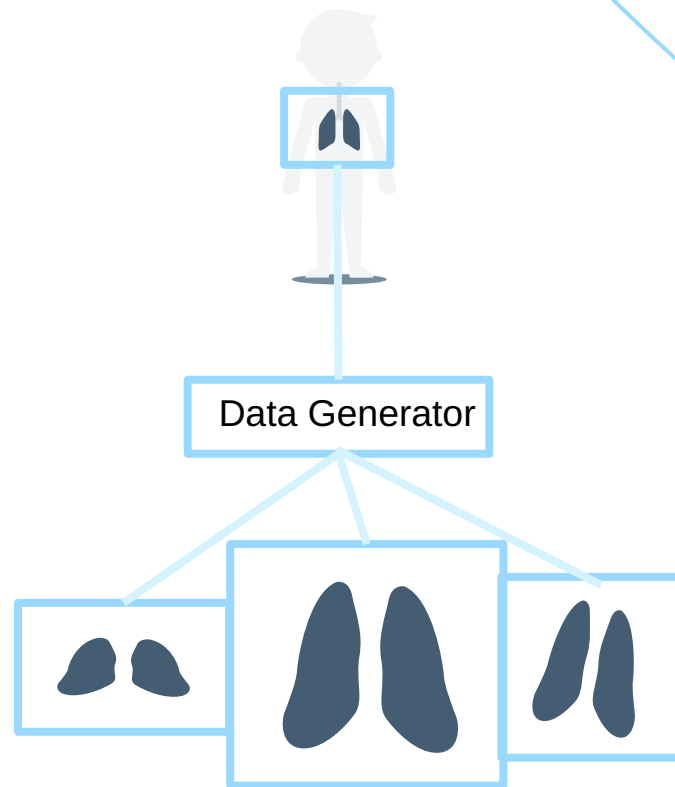
ImageDataGenerator

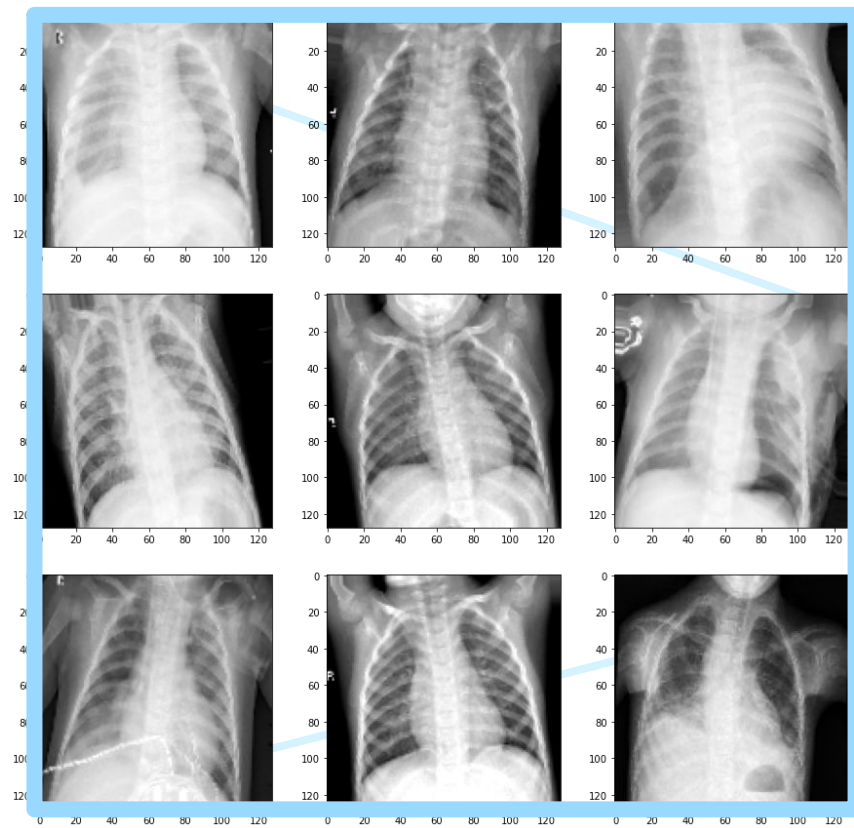


Creates variants of
training images

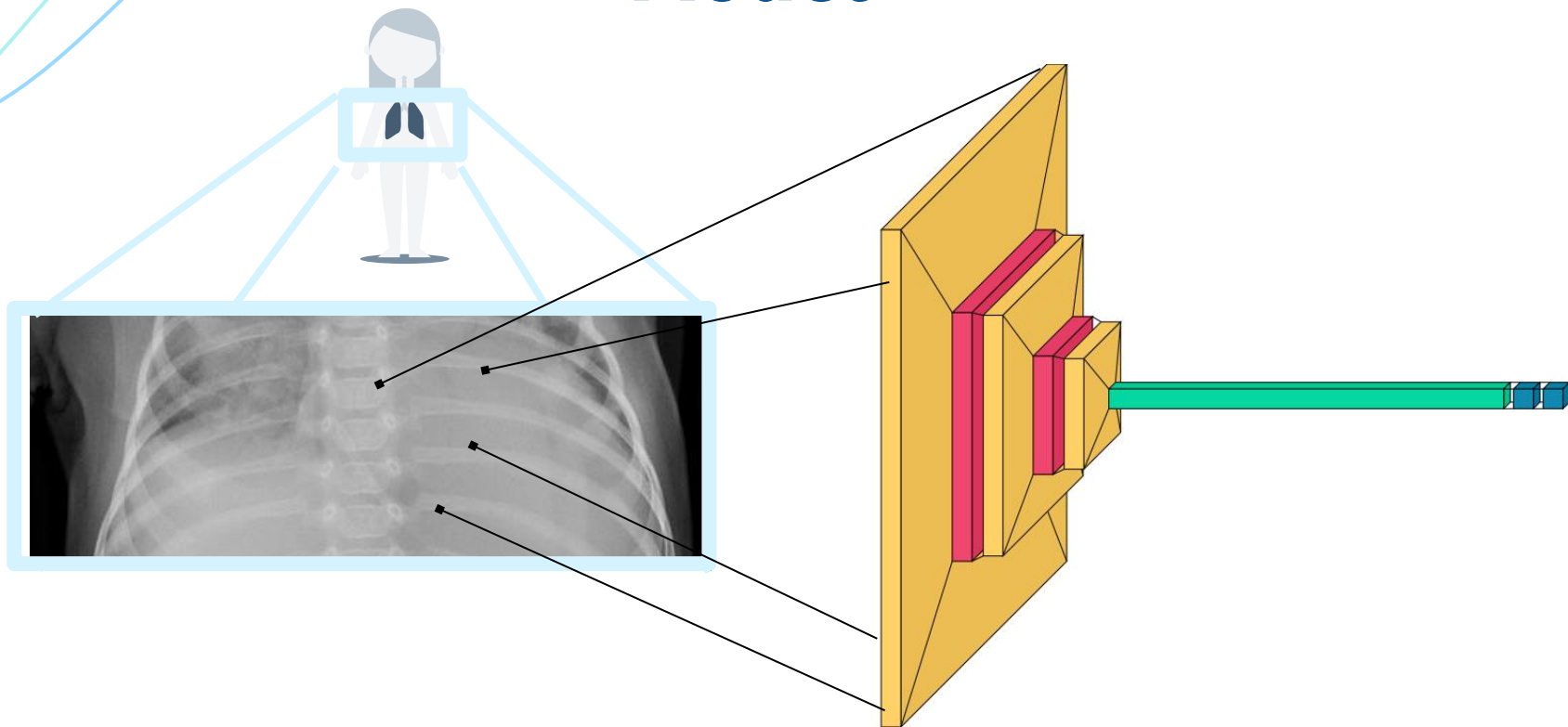


Training becomes more
robust

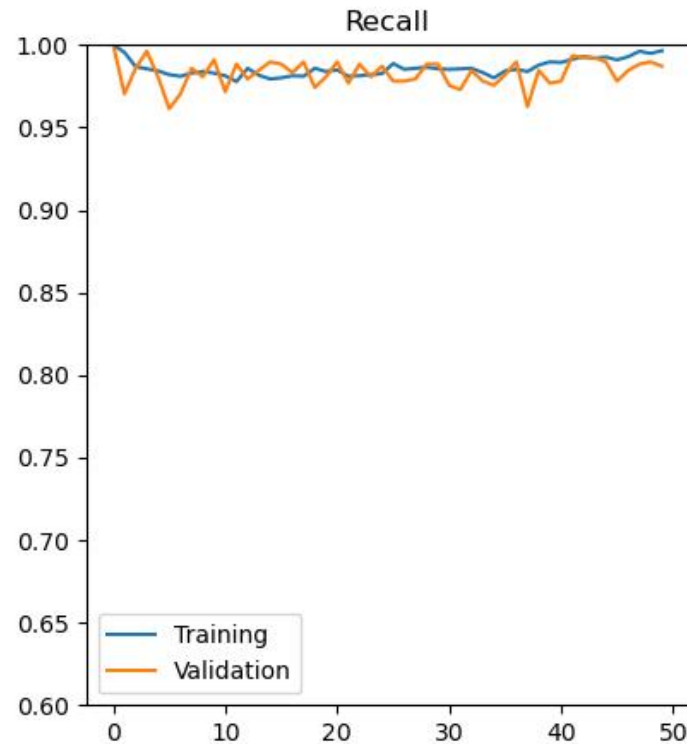
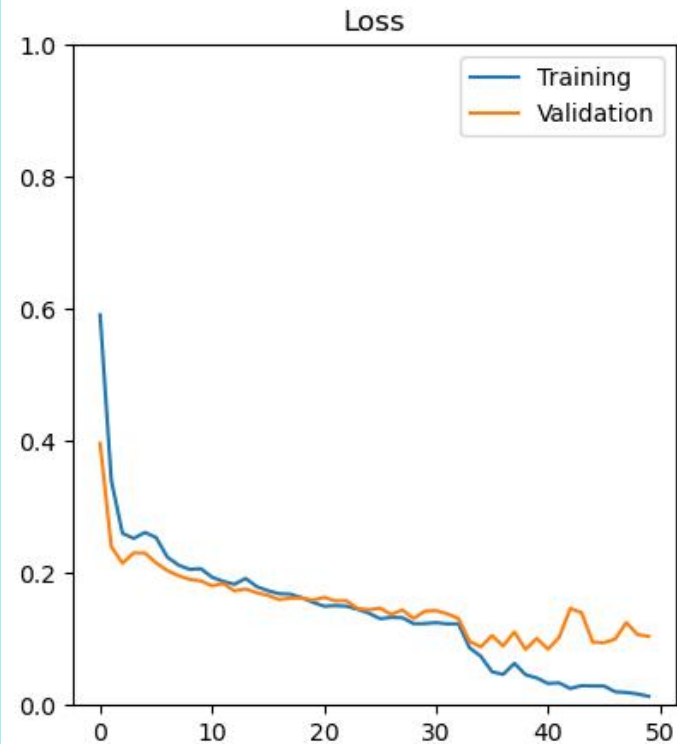




Model

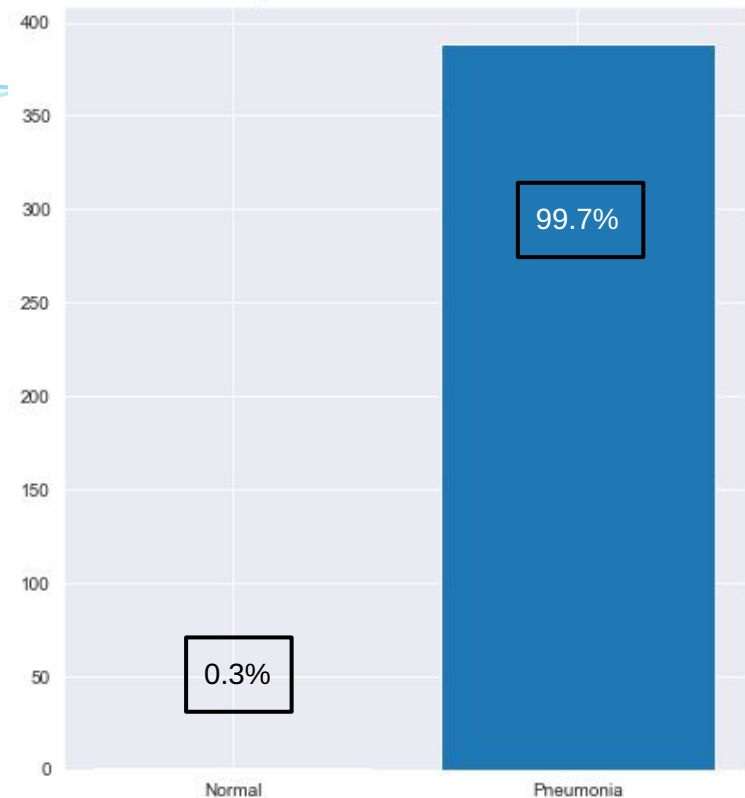


Model Performance:

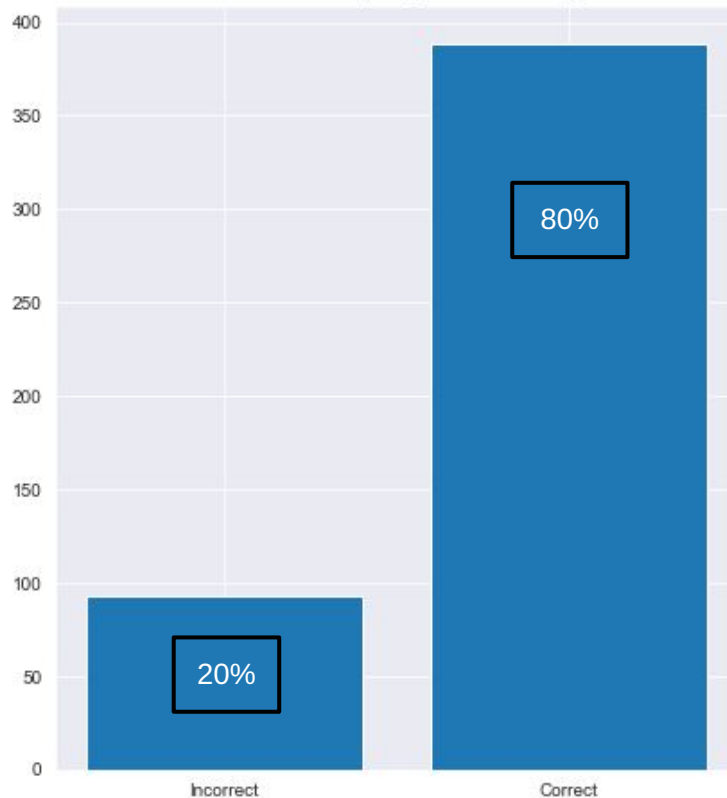


Model Performance:

Diagnosis in Patients with Pneumonia



Number of Patients Correctly Diagnosed as Having Pneumonia



Conclusions



Model

Prediction : 99.7%



Implementation

Integrating the model
into existing telework
systems



Further Training

Further Development

Future Investigations



Multiclass



Distinguishing between bacterial and viral cases of pneumonia

Expanding the model

Other pulmonary disease
i.e. Lung Cancer, Cystic Fibrosis

THANKS!

Project github : <https://github.com/Giddybird/xrayid>



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