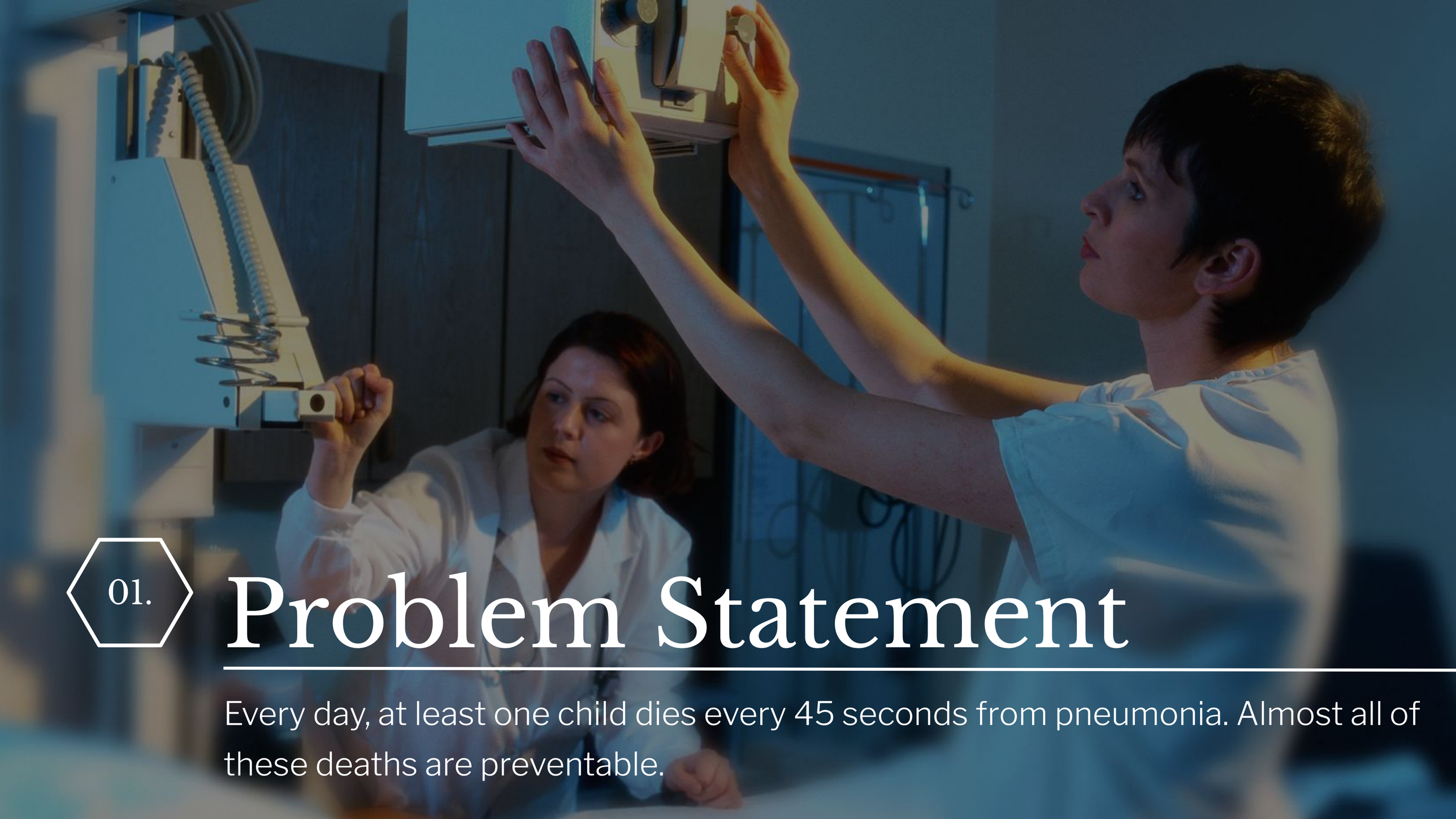
Detecting Pneumonia in X-rays with Deep Learning

Presented By: Tenicka Norwood



01.

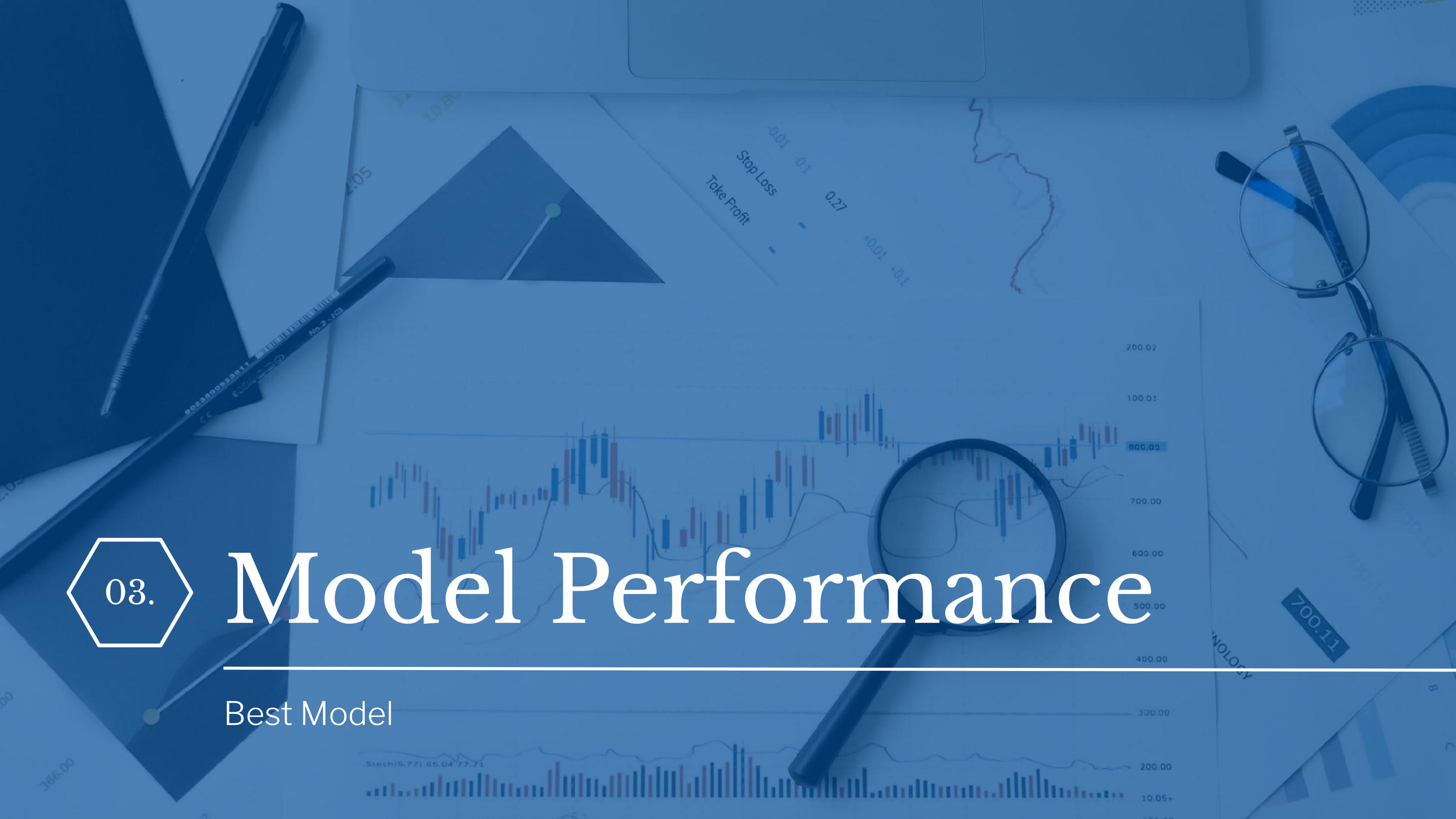
Problem Statement

Every day, at least one child dies every 45 seconds from pneumonia. Almost all of these deaths are preventable.

02.

Deep Learning Models

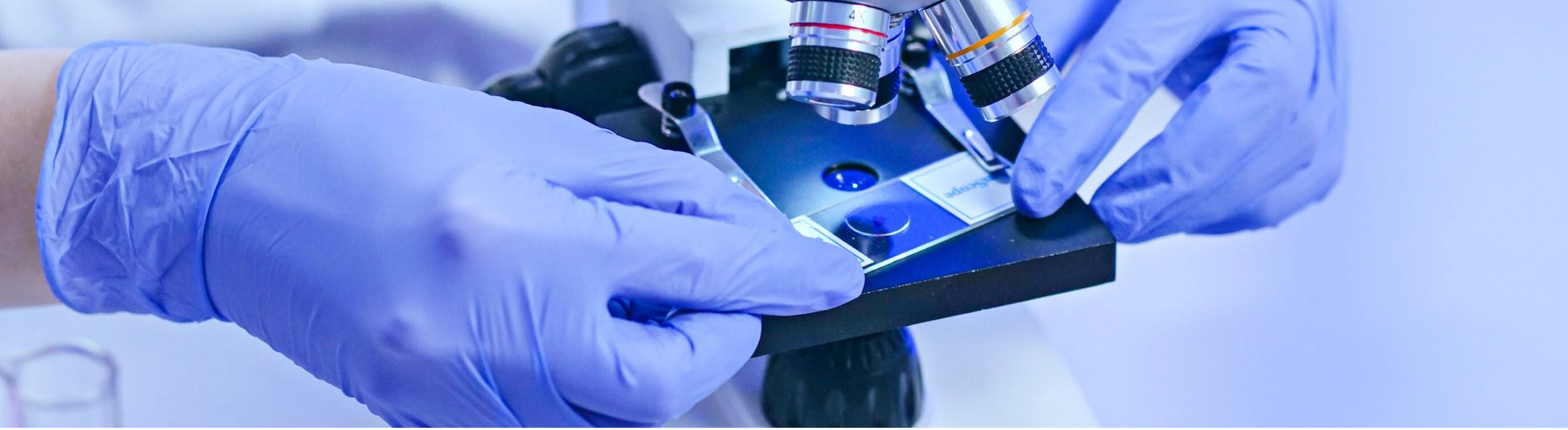
Employing computational methods to detect pneumonia in X-ray images can significantly reduce mortality rates among children.



03.

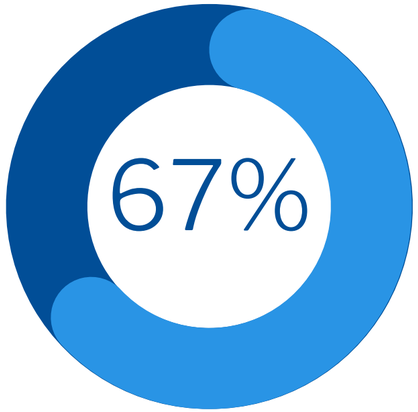
Model Performance

Best Model



Infographic Slide Report

Elaborate on the featured statistic



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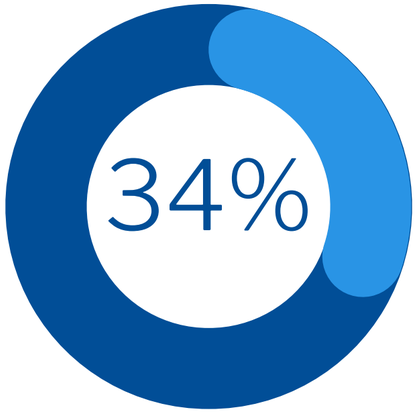

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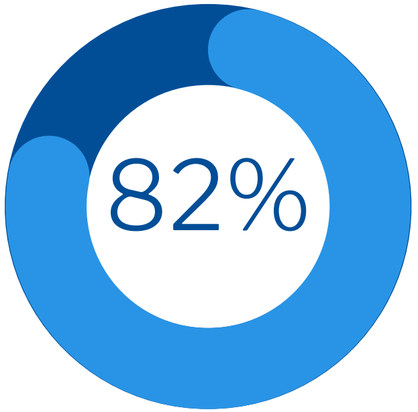

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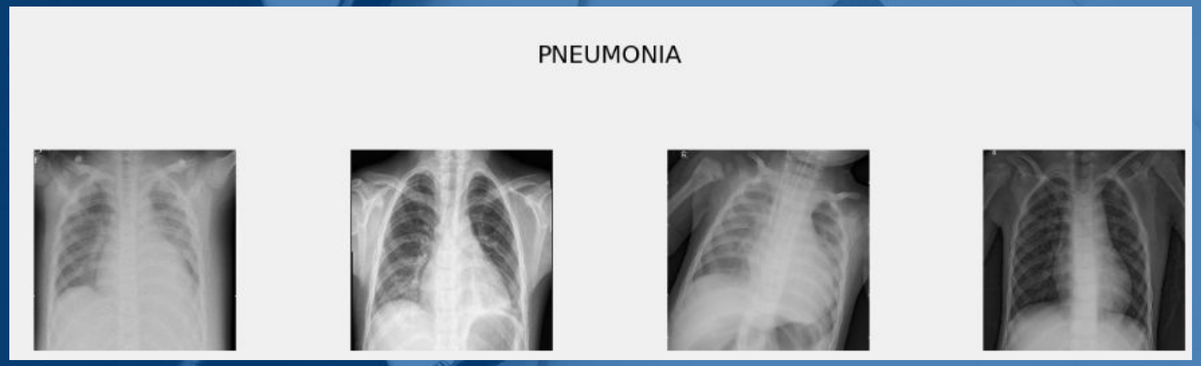
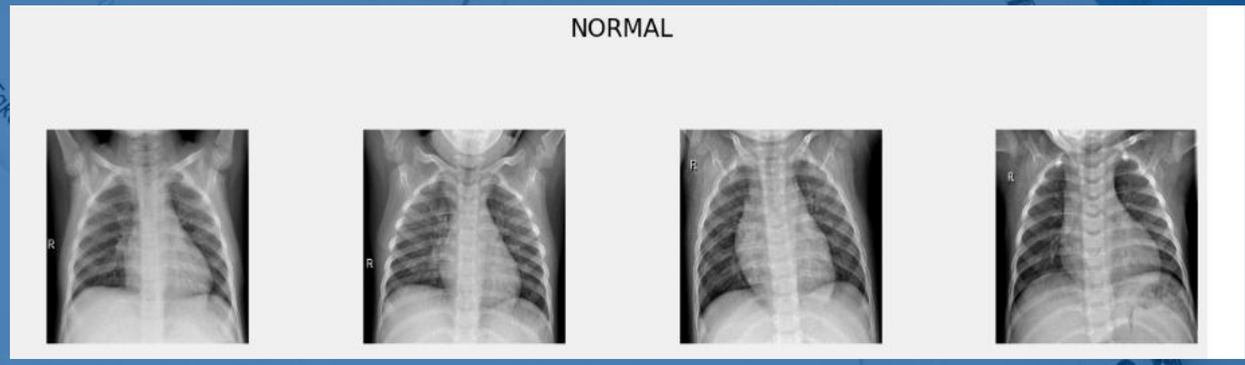




Training Materials

Expert evaluated images used in training the model could be used in training materials or quick reference materials for clinicians, radiologists and physicians.

Recommendations

Optimal Scanner Placement

Strategic placement of x-ray scanners preloaded with best model

Use Data

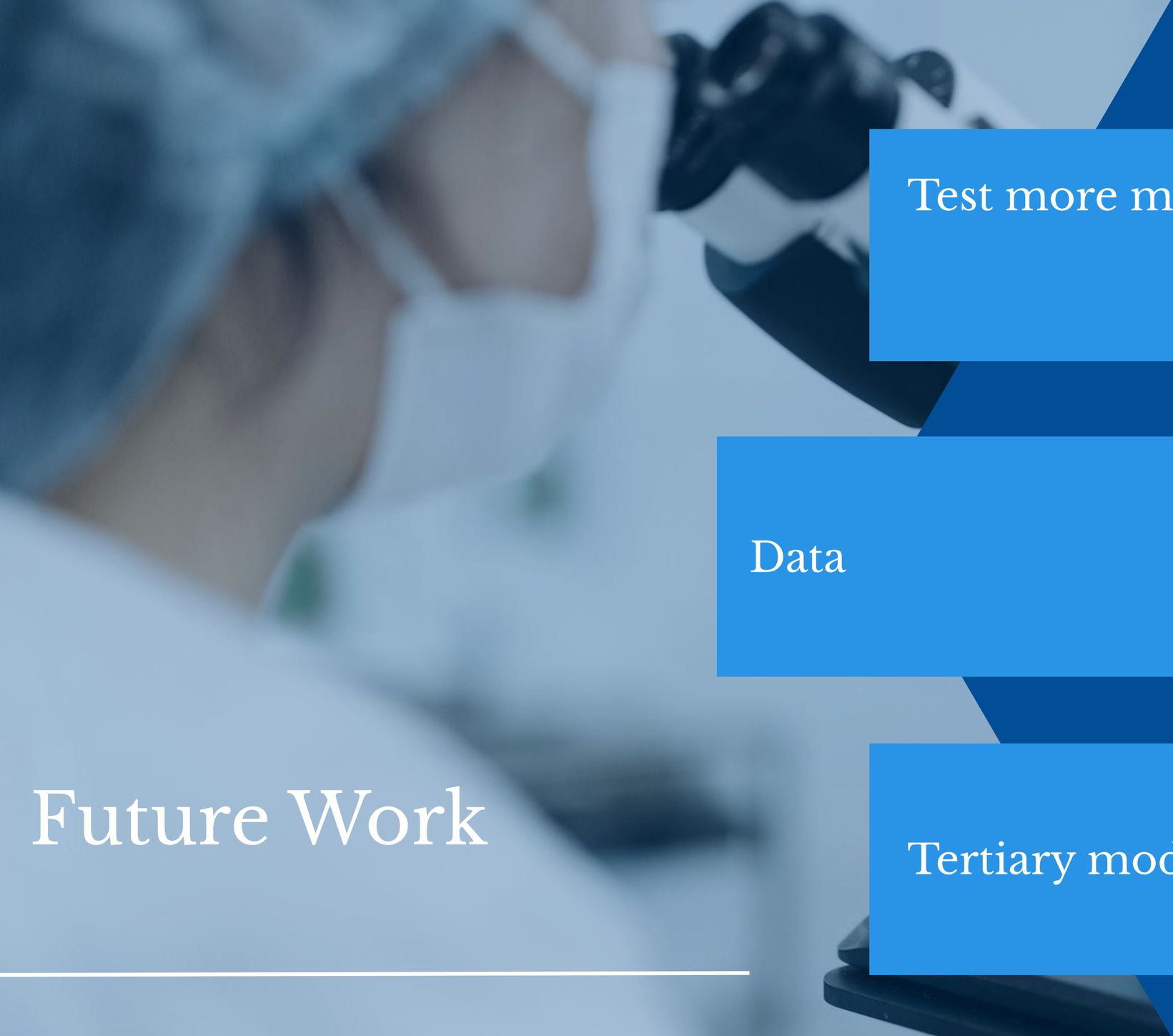
Collect expert-evaluated images to enhance model accuracy and performance

Speed up Testing

Experts use model output for swift, accurate analysis

Perform SWOT Analysis

Review locations for rapid deployment in countries with high childhood pneumonia rates



Future Work

Test more models

test Resnet50, vgg19 and other pretrained models

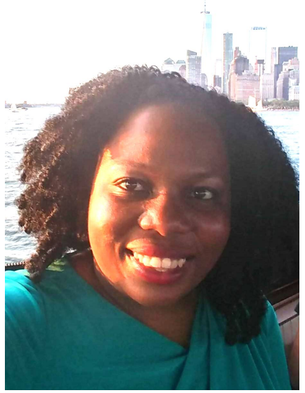
Data

Collect more data of NORMAL chest scans

Tertiary model

PNEUMONIA can be caused by a virus or bacteria

Thank you!



Any questions?

You can find me at:

- Repo at:
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