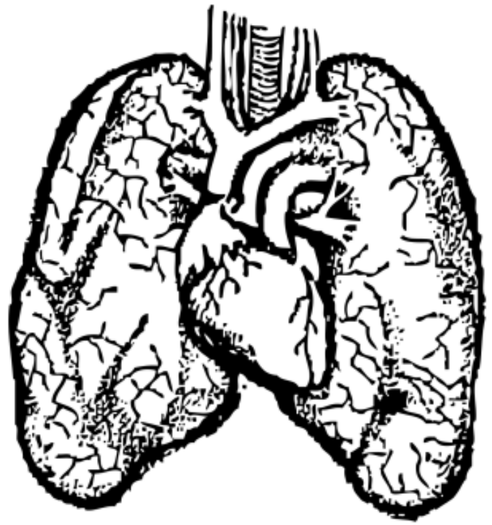
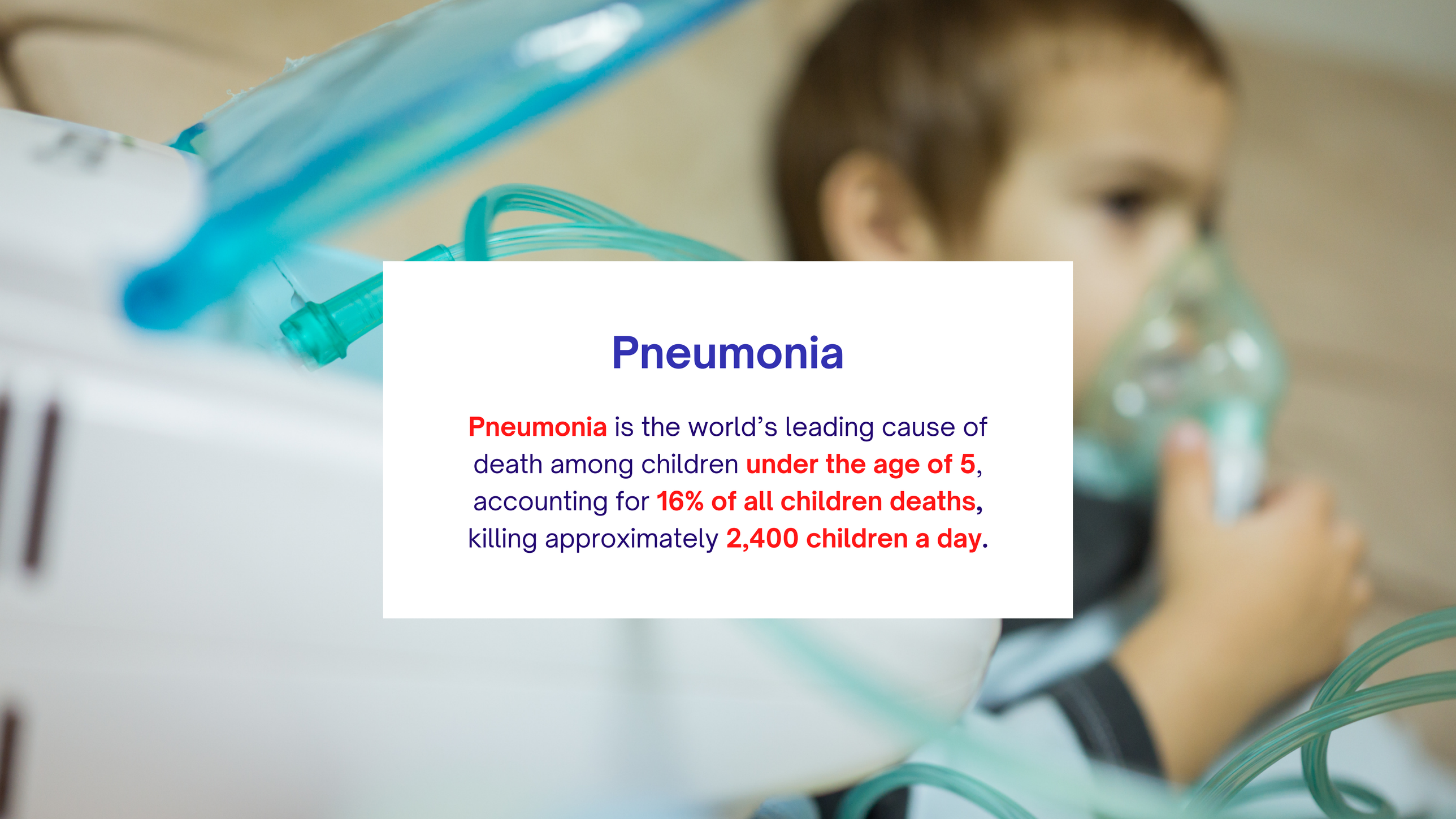
2022 MICROSOFT IMAGINE CUP

PnCheck

Improving AI-health service by detecting Pneumonia in X-ray images using Azure and TensorFlow





Pneumonia

Pneumonia is the world's leading cause of death among children **under the age of 5**, accounting for **16% of all children deaths**, killing approximately **2,400 children a day**.

Diagnosing Pneumonia

1

Based on symptoms

- Chest pain when you breathe
- Cough which may produce phlegm

2

Based on chest X-rays

- Only very few medical professionals are qualified

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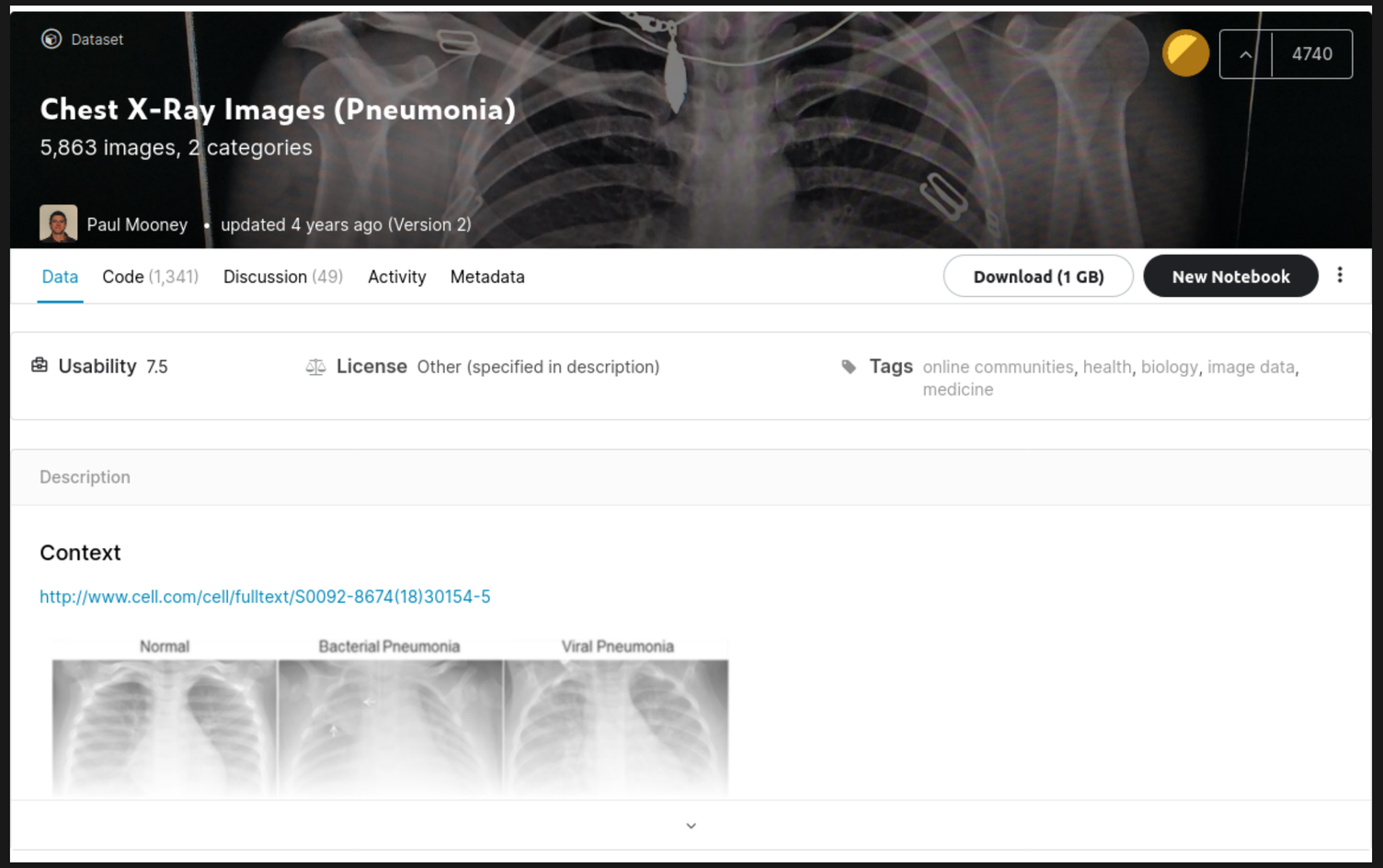
Chest X-ray Dataset



Normal: 1,583

Pneumonia: 4,273

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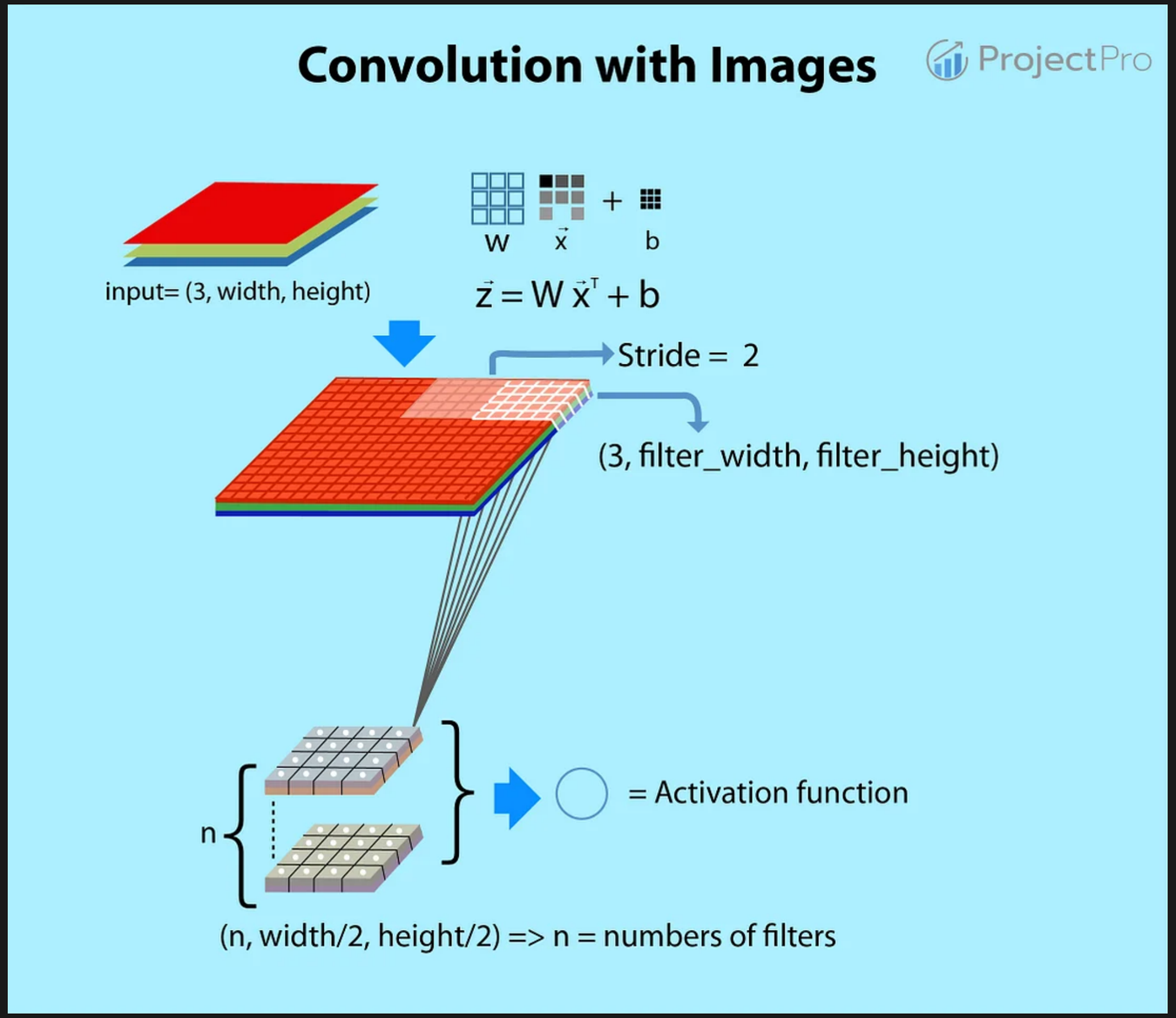
Convolution Neural Network



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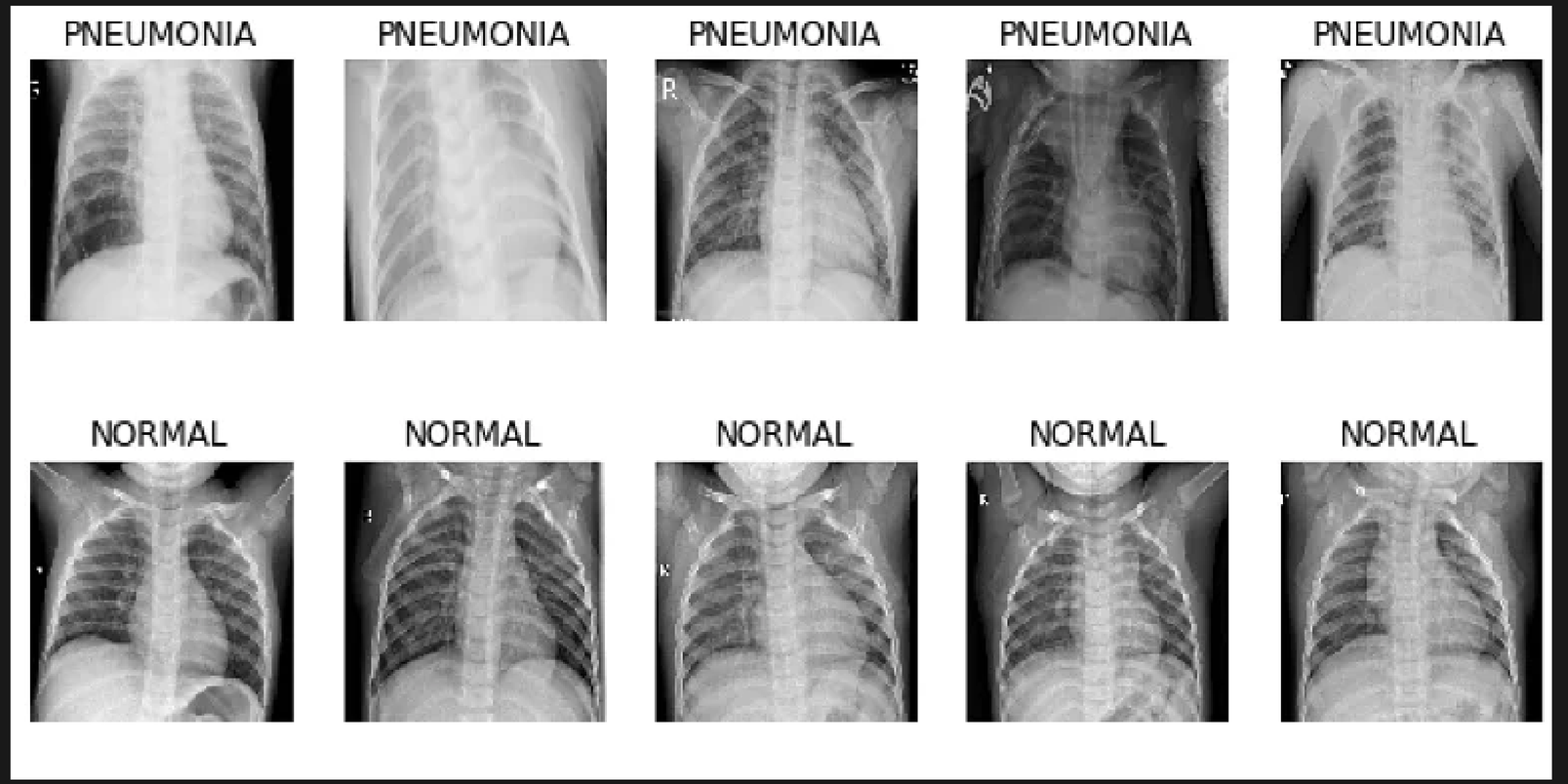

Accuracy : 95.14%

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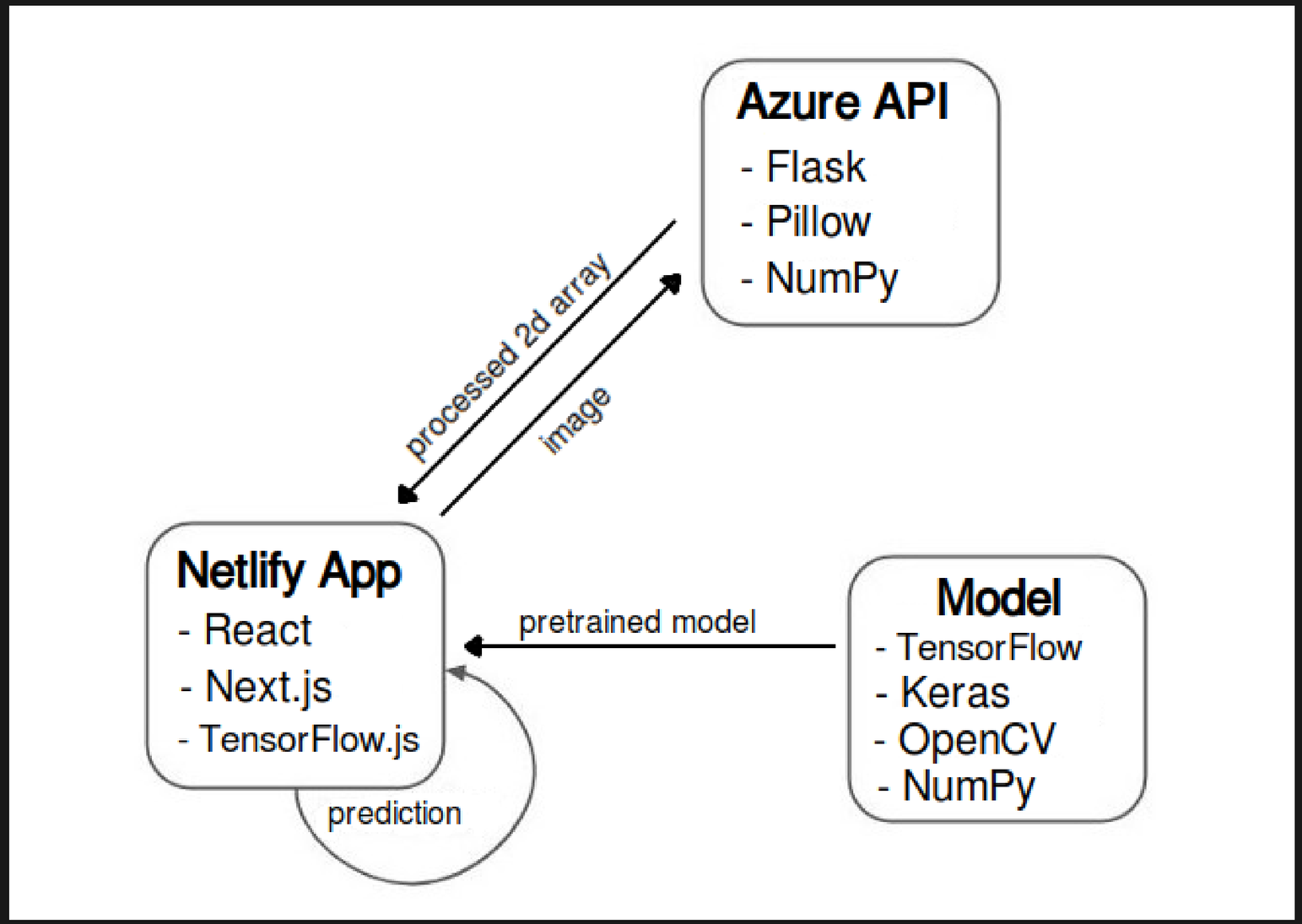
Architecture



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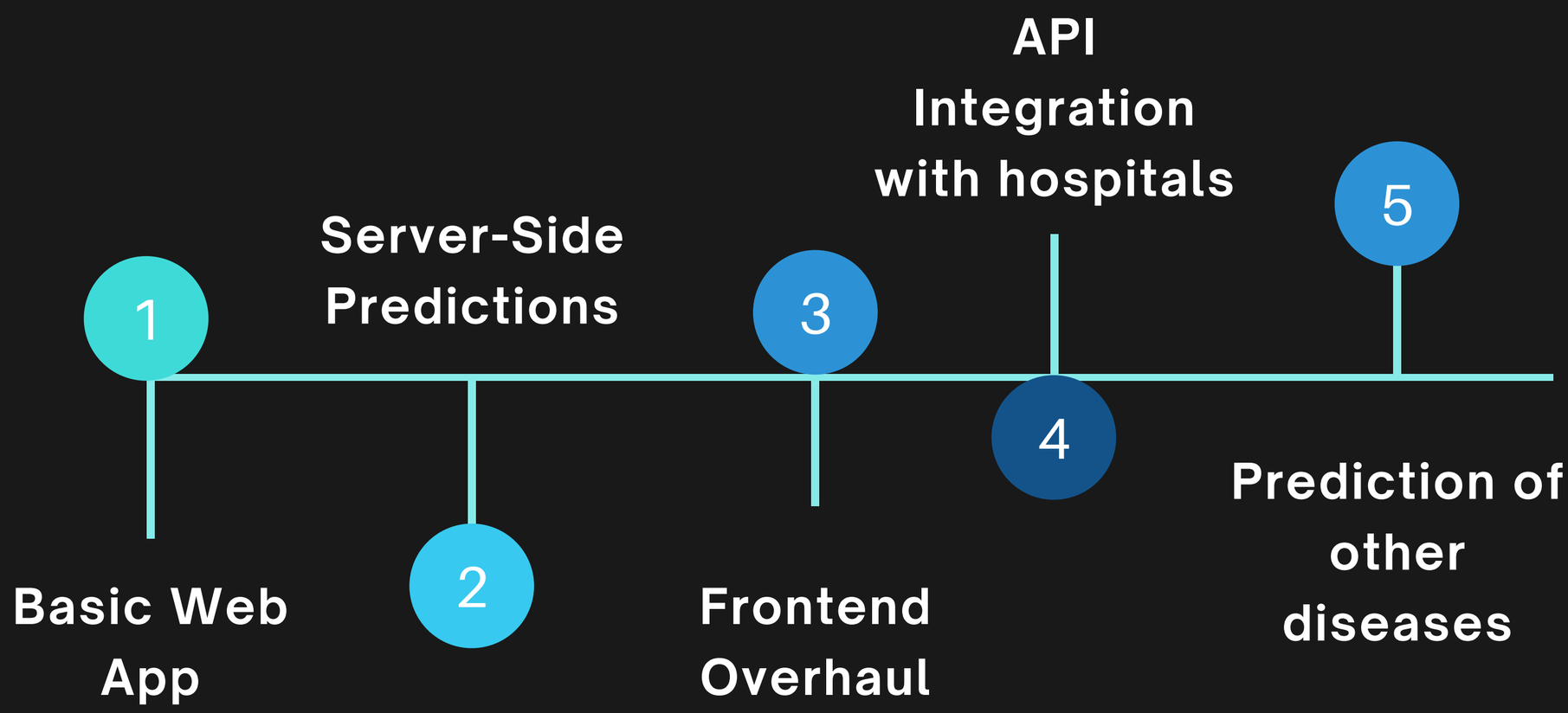
Milestones



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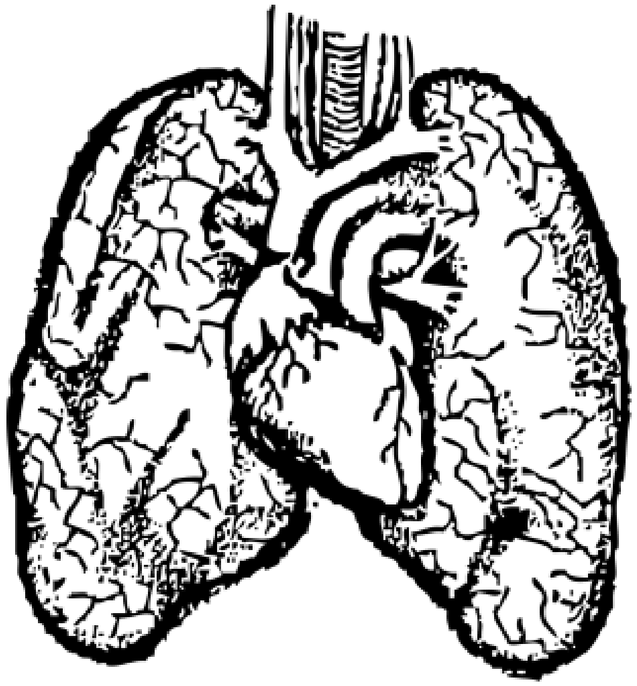

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