



Chest X-Ray Analysis

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Overview

- Create model that reads chest x-ray to determine pneumonia or not

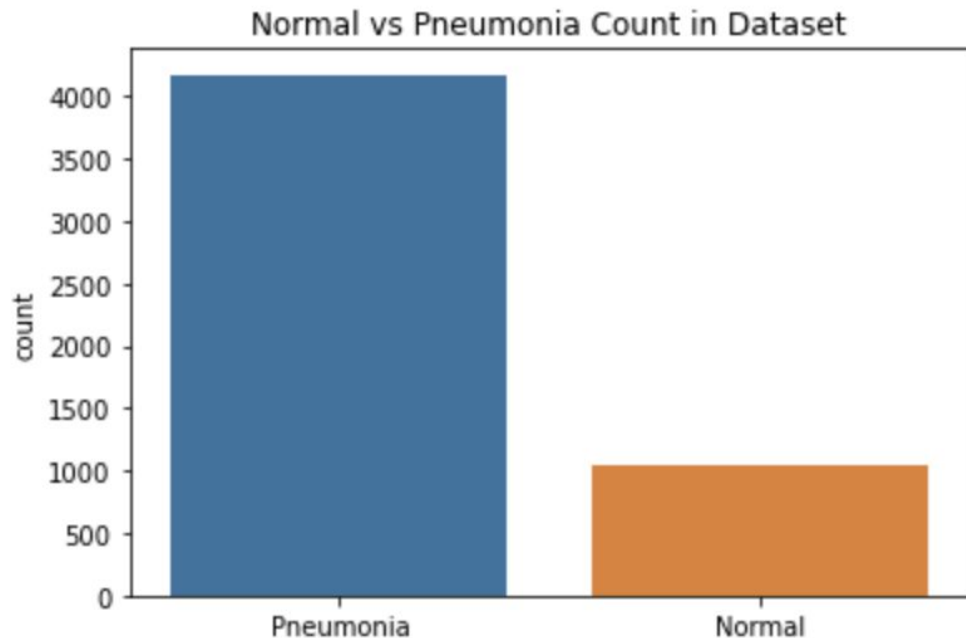
Outline

- Business Problem
- Modeling
- Evaluation
- Conclusion

Business Problem

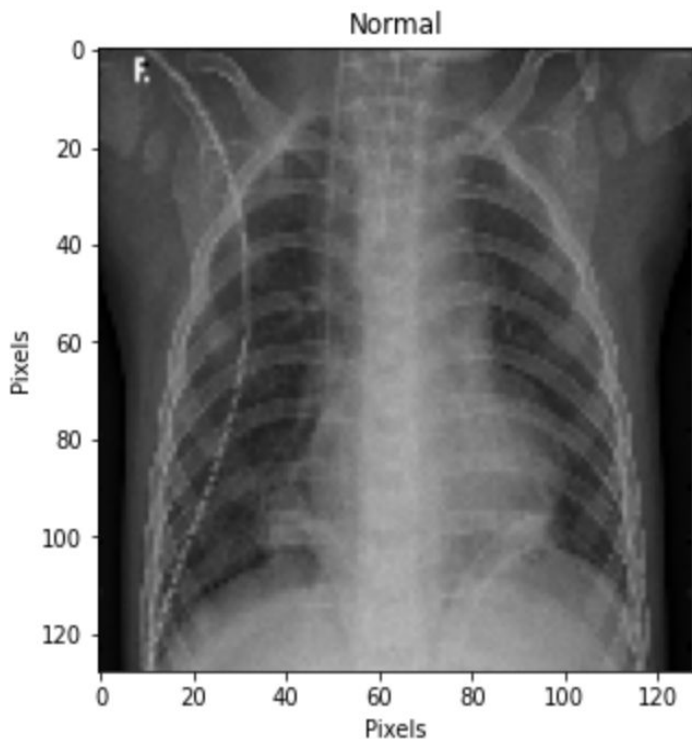
- Hospital wants to reduce time reviewing chest x-rays
- Mass results and accurate readings

Data

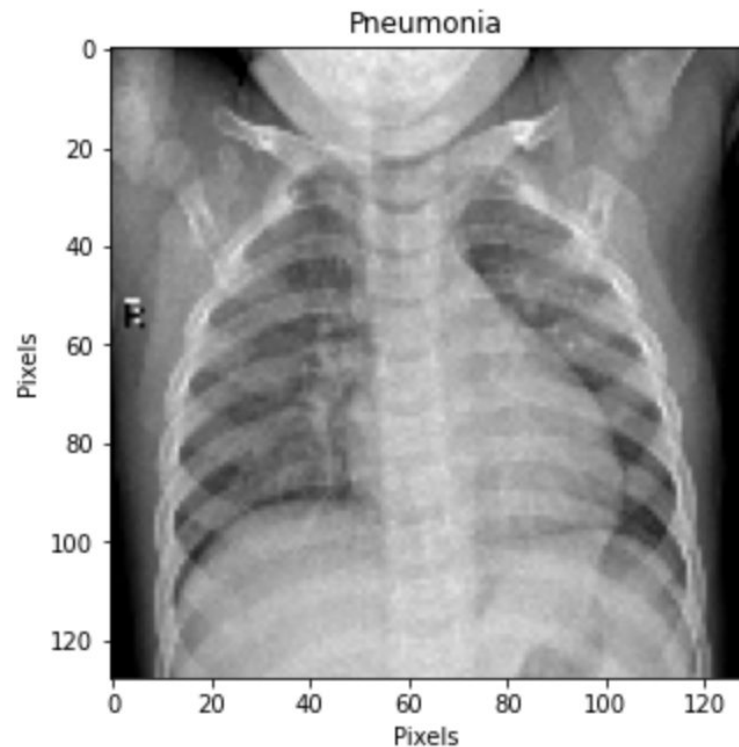


- Chest x-rays from pediatric patients of Guangzhou Women and Children's Medical Center

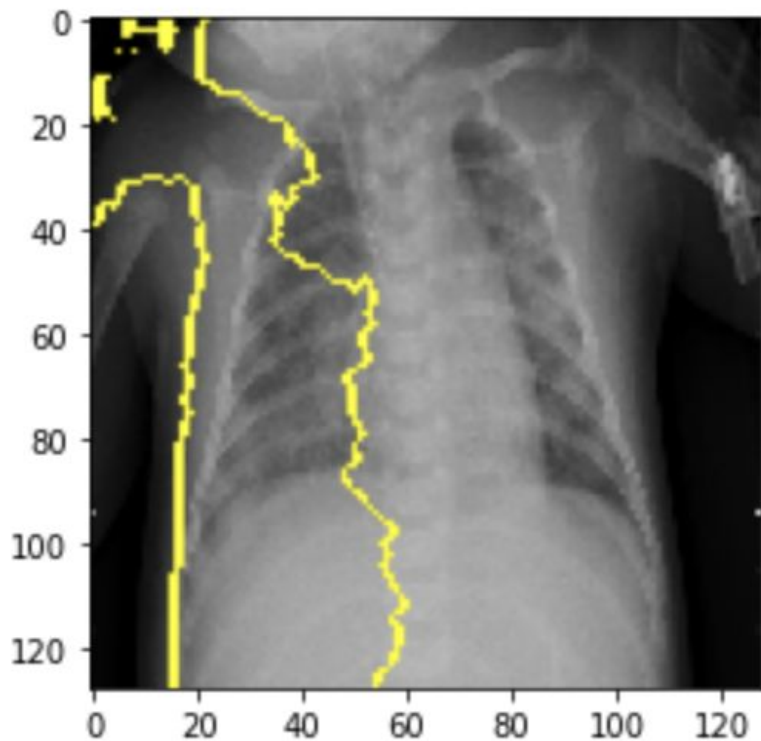
Modeling



- Iterating through deep learning networks



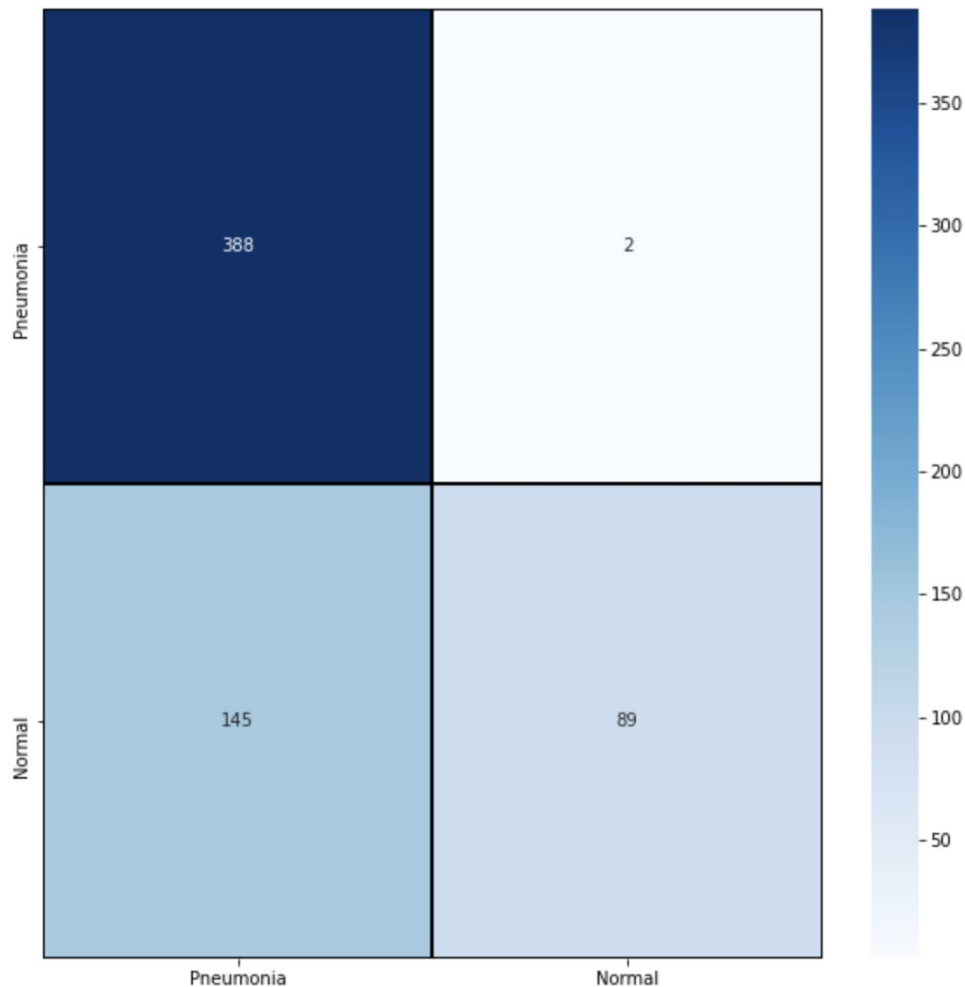
Evaluation



- Accuracy score of 76.5%
- Using LIME to aid diagnosis assistance

Evaluation

- False positives most detrimental
- 145 false positives



Conclusion

- Use CNN model
- Help radiologist save time
- Use LIME to aid diagnosis assistance

Thank you!

Questions?

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