Chest X-Ray Analysis

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Overview

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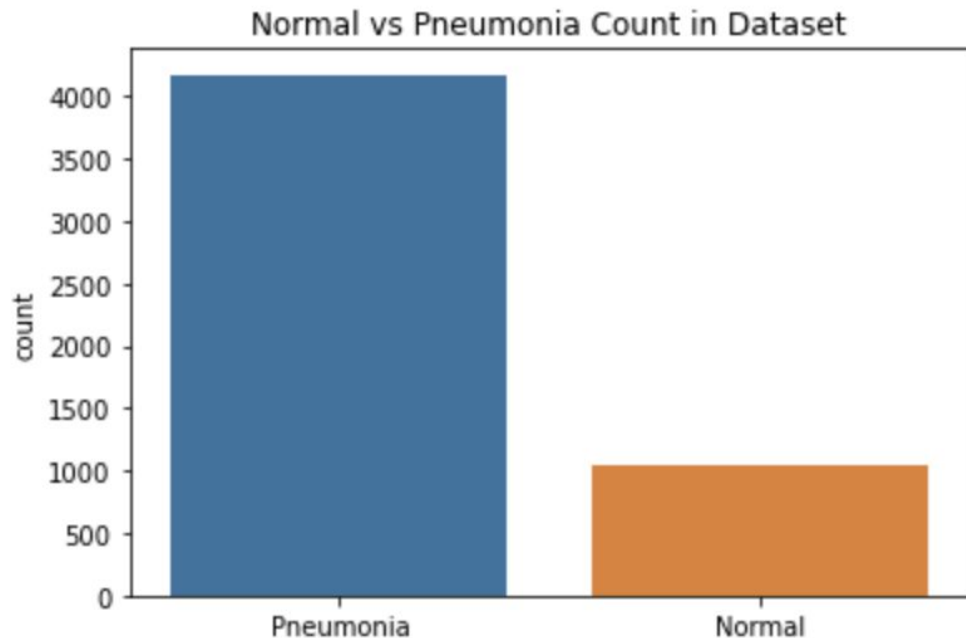
Outline

- Business Problem
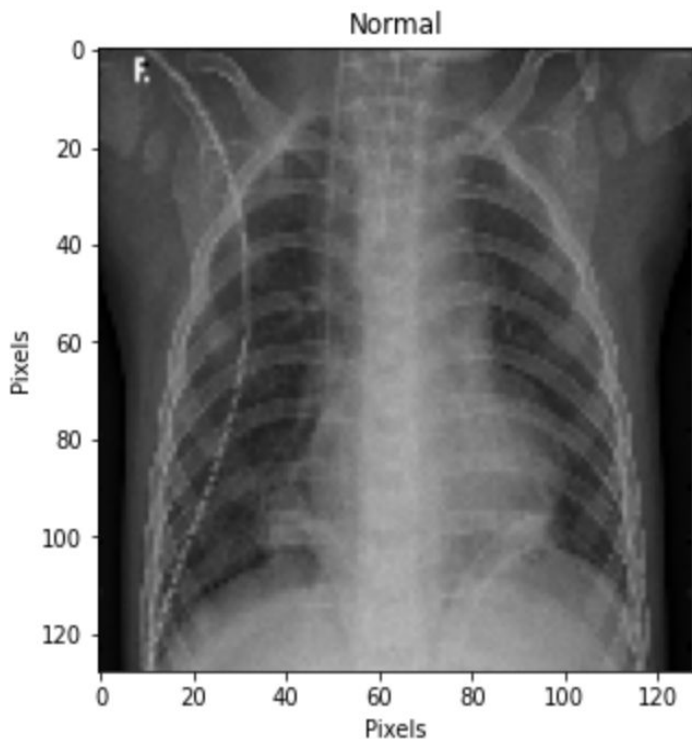
- Modeling

- Evaluation

- Conclusion

Business Problem

- Hospital wants to reduce time reviewing chest x-rays

- Mass results and accurate readings
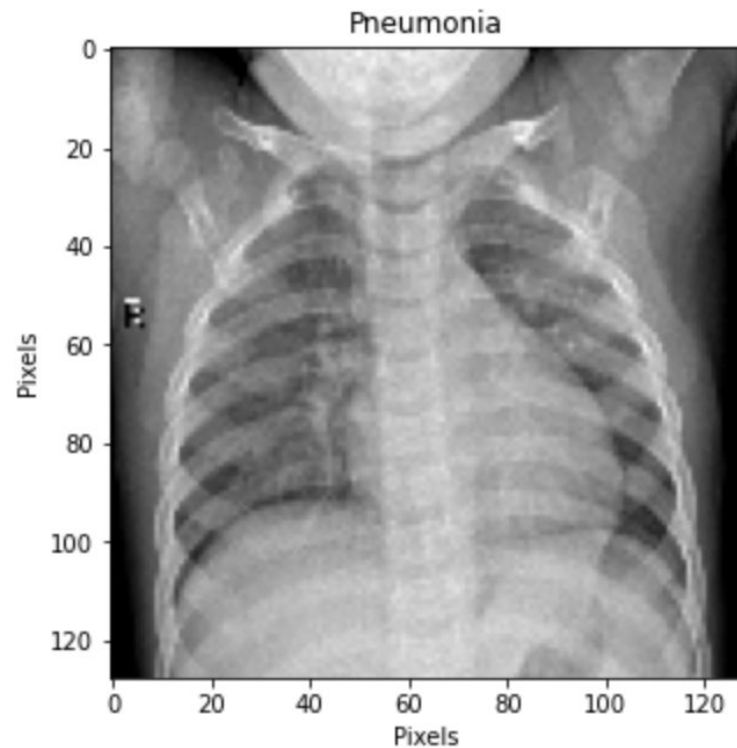
Data

Normal vs Pneumonia Count in Dataset

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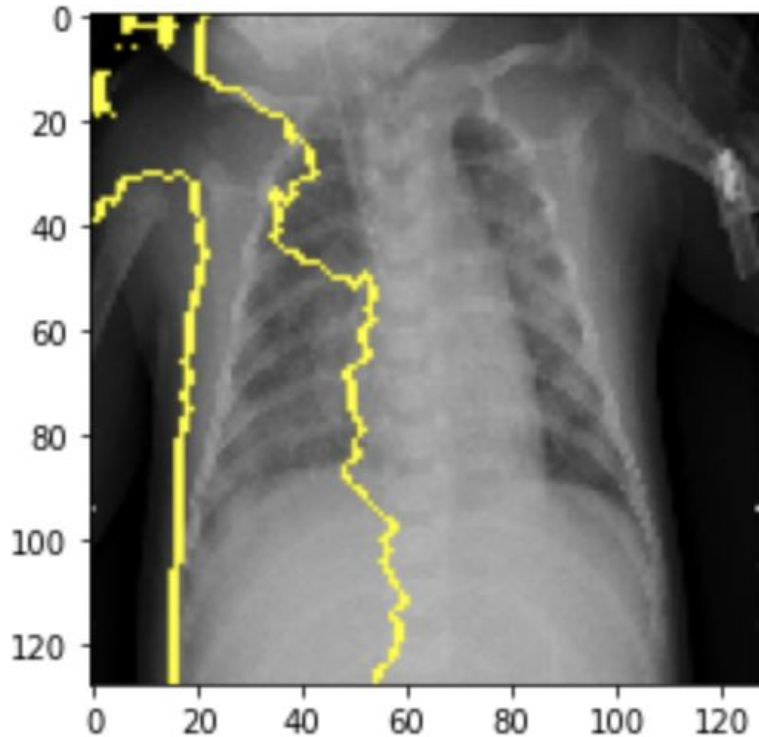
Modeling

Normal

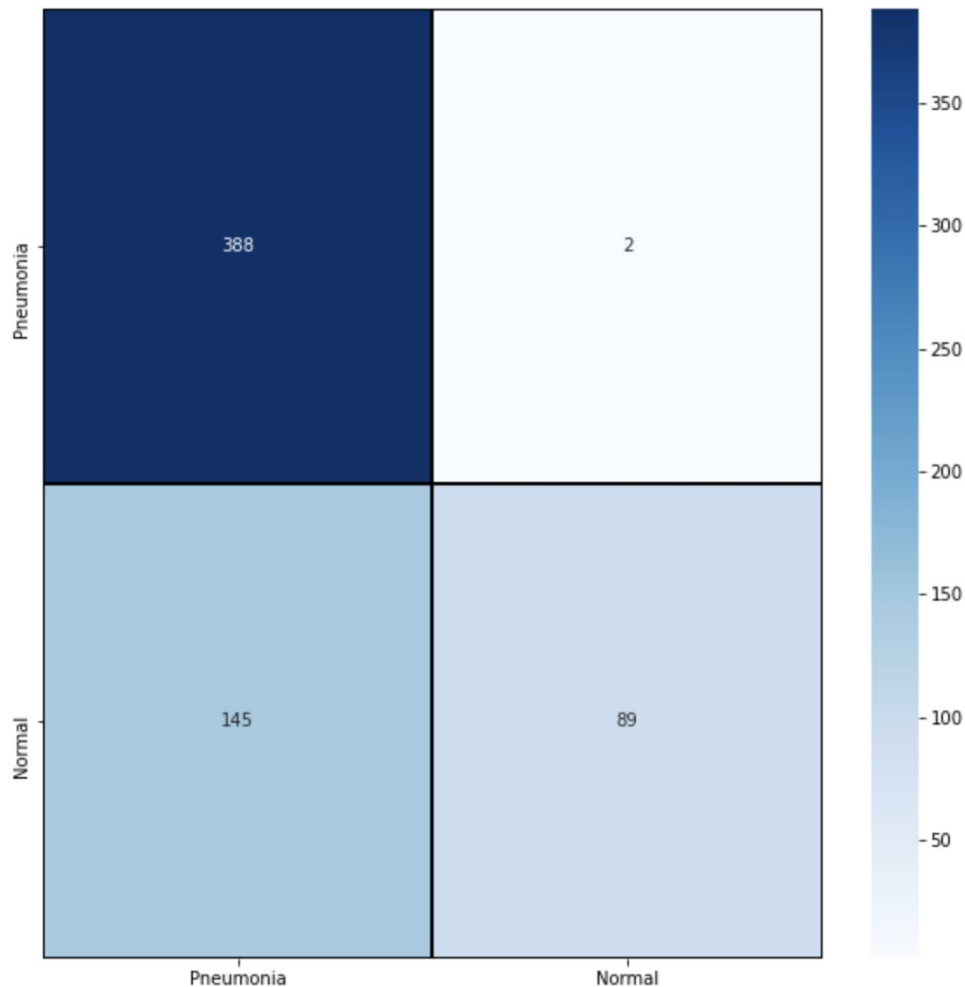- Iterating through deep learning networks

Pneumonia

Evaluation

- CNN model with 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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