

Forecasting Air Quality in New York City

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Overview

- Business Problem
- Data Understanding & Analysis
- Modeling
- Conclusions & Next Steps



The Problem



AQI

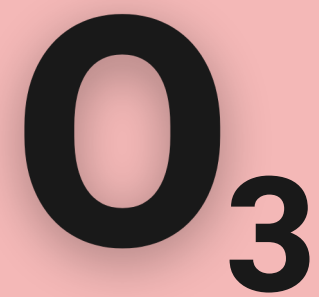
AIR QUALITY INDEX

Air Quality Index



- national standard: 100
- determined by highest value
- large cities report daily
- easy to interpret

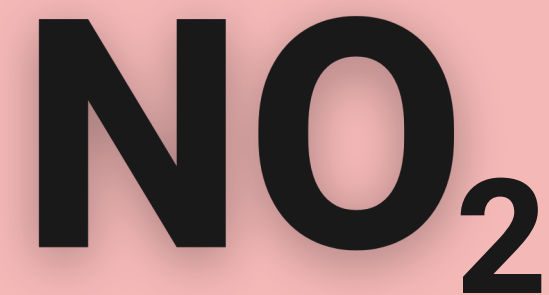
Pollutants



Ground-Level
Ozone



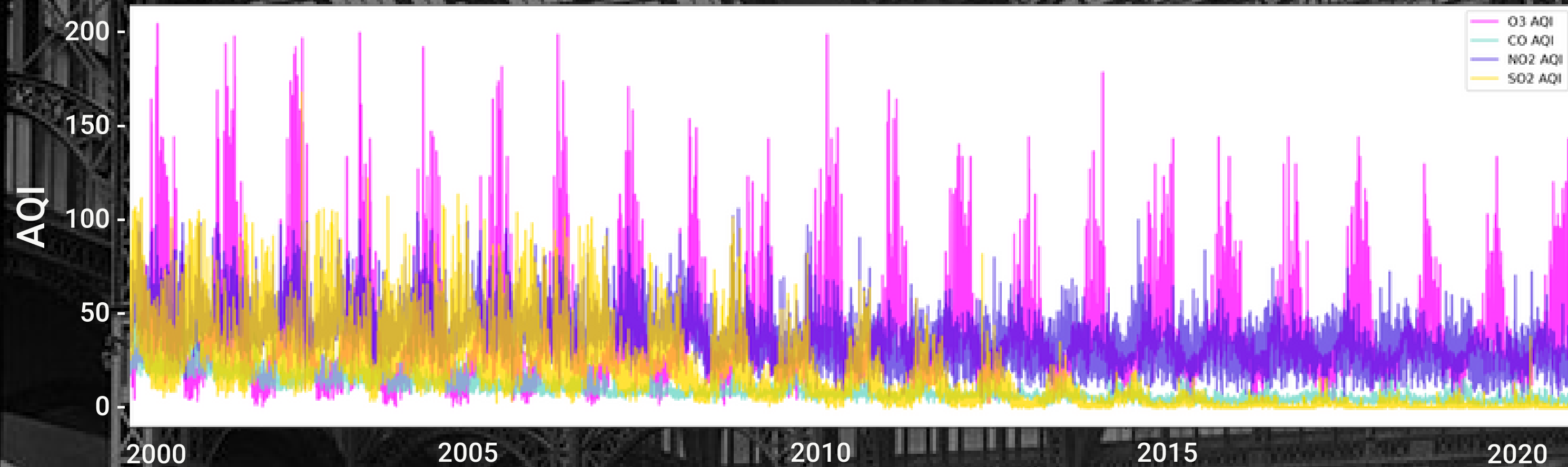
Carbon
Monoxide



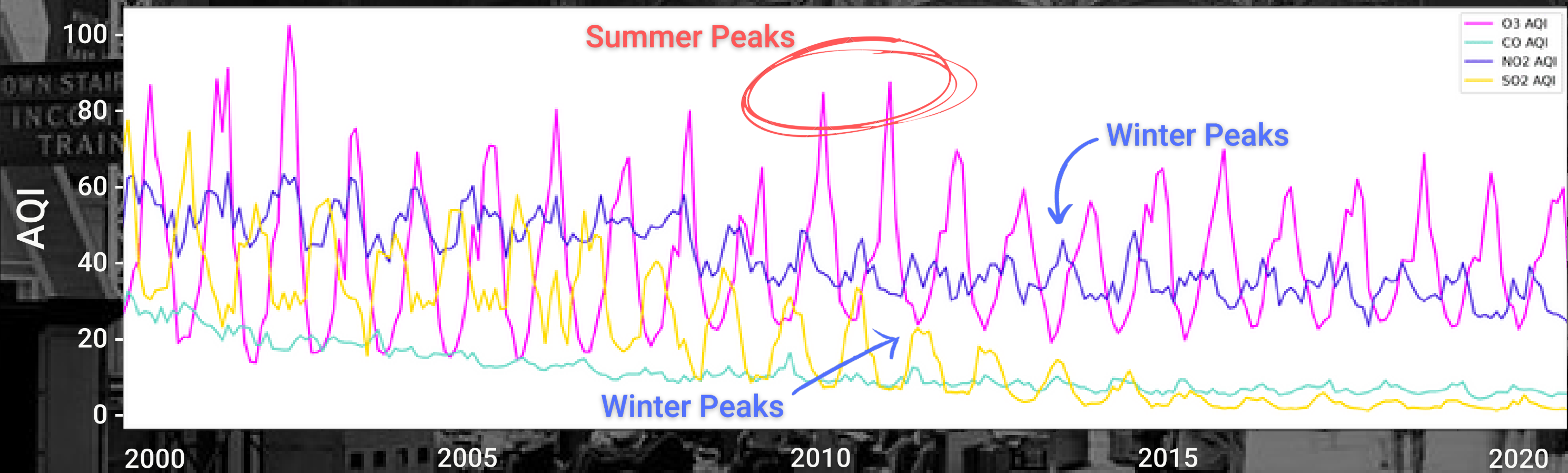
Nitrogen
Dioxide



Sulfur
Dioxide

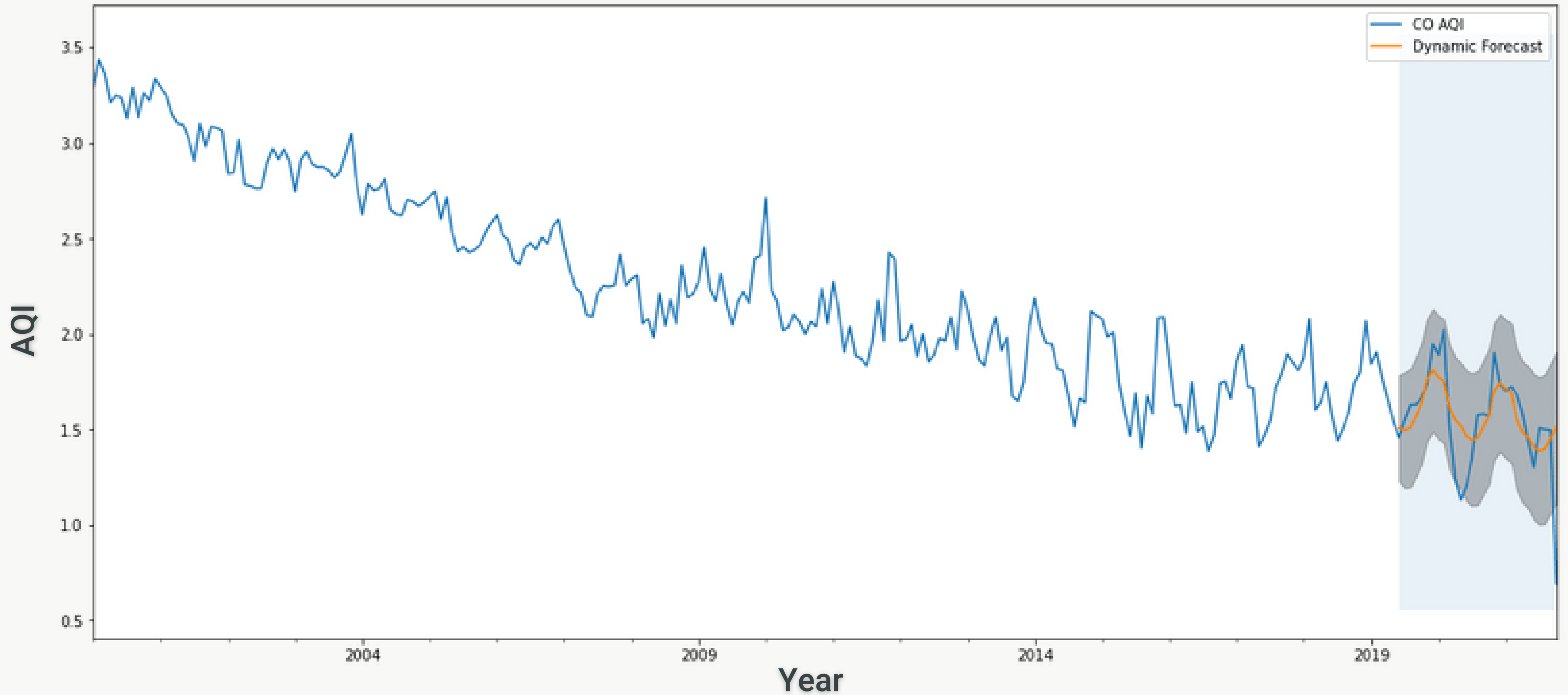


Daily

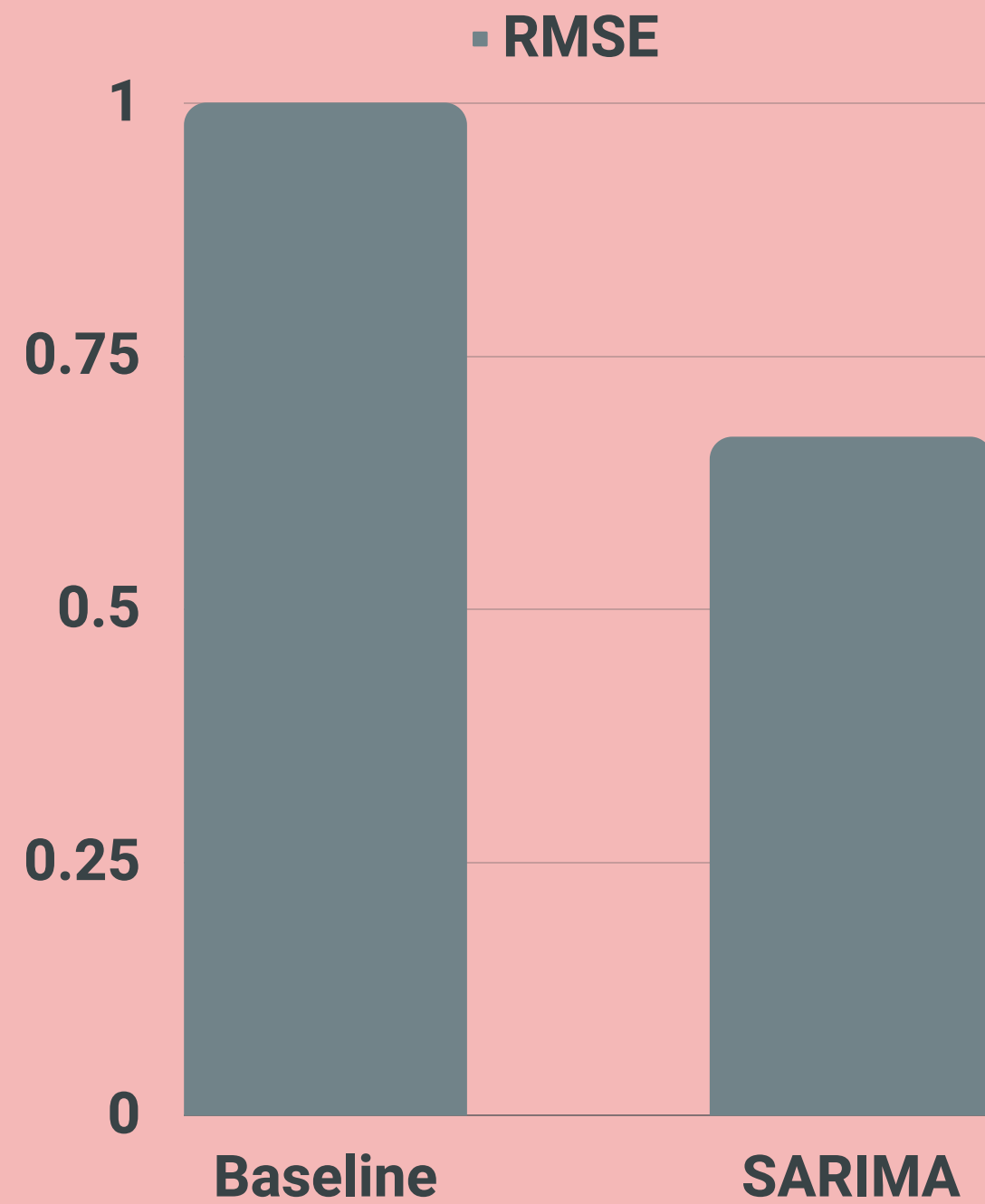


Monthly

CO AQI



Modeling



BASELINE
RMSE 1.43

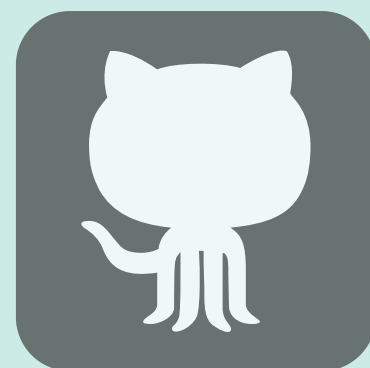
SARIMA
RMSE 0.80



Conclusions & Next Steps

- Good performance
 - Public health
 - Government policy
- Beyond NYC
 - Particulate matter
 - RNN / VAR





THANK YOU!

**LET ME KNOW IF YOU HAVE ANY
QUESTIONS OR COMMENTS**