

# **Coursera Capstone**

## **Capstone: Italian Options in Houston, TX**

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# Introduction

## Background and Problem

Company XYZ will be sending sales representatives to a convention in the City of Houston, Texas in the Southwestern United States with a specific senior financial executive in mind. They know the executive loves Italian Food, but this is XYZ's first trip to Texas.

The Sales team of company XYZ wants to make sure they select an Italian Restaurant and the legal department wants to be sure crime statistics impact that decision.

# Data Acquisition

## Sources Summary

### **The City of Houston OpenData Website**

This resource provides a GeoJSON for the individual areas of operation of the various departments of the Houston Police Departments. In this case divided up by "beats". The use of these map boundaries is significant as publicly available crime data for Houston is only categorized by beats.

### **Houston Police Department Crime Data**

This resource is only available as an xls file and ,again, only available by beat. The file composed over 60,000 crimes between 01 Jan 2020 and 04 25 2020 and is the only official release for crime data for Houston.

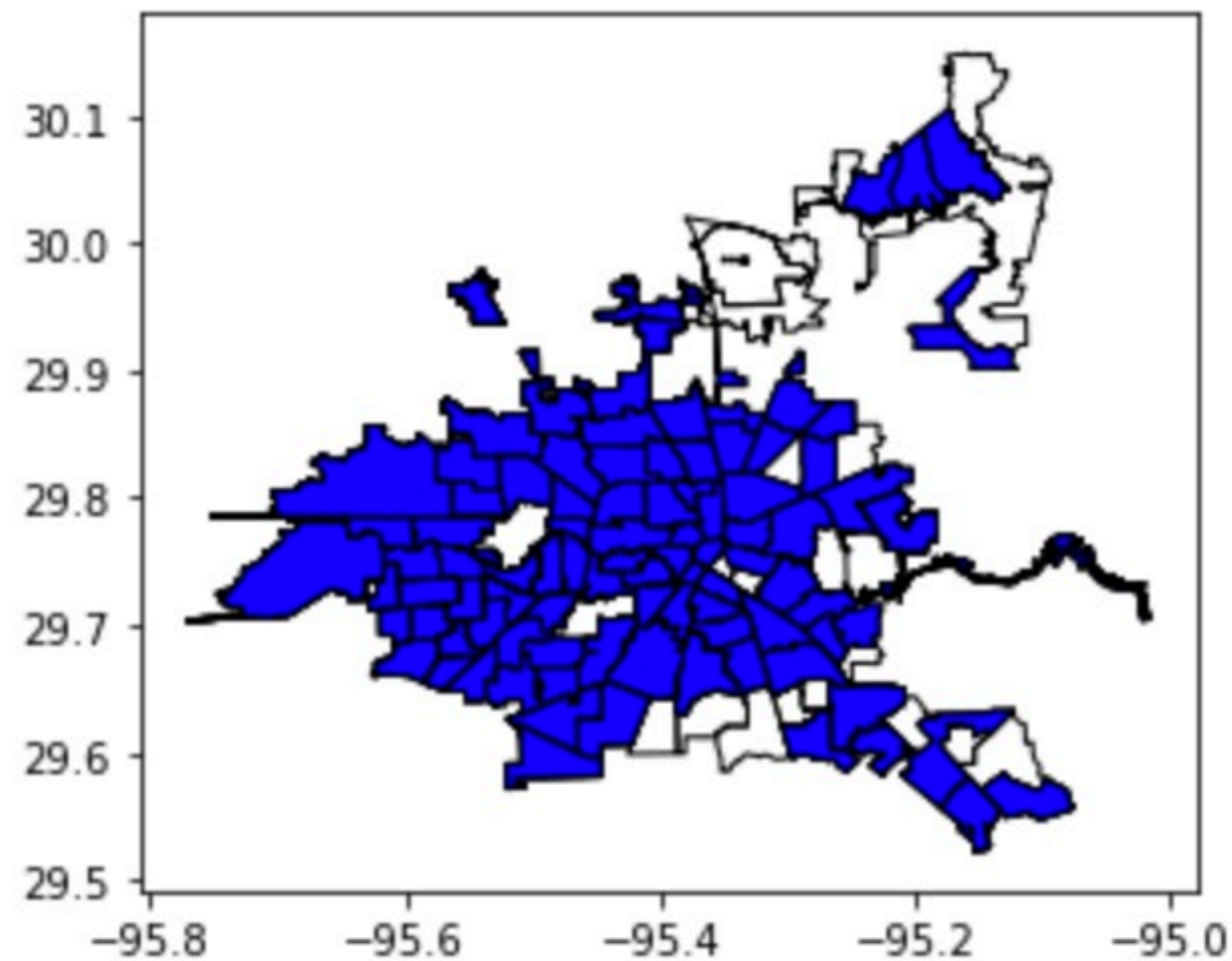
### **The Foursquare API**

Company XYZ has limited access to this tool through a sandbox account. In order to establish restaurants of interest, I will explore Italian restaurants in areas deemed safest for that purpose. This will reduce the number of calls needed and satisfy company requirements.

# Restaurant Crime Data by Police Beat

## Using GeoDataFrames to Identify and Narrow Focus

A test map of the restaurant crime data shows multiple police beats with no restaurant related crime in 2020.



# The Final Choice

## Conclusion

- The final GeoDataFrame only shows one location within Houston, Tx that is not facing crime issues pertaining to restaurants.

