

Coursera - IBM Data Science Professional

Applied Data Science - Capstone Project

Date: December 2020

Name: Ching Chieh (Marcos) Hsiao-Tseng

Analysis of the Lowest Crime Ridden Community Areas in Chicago in 2020

Introduction

The purpose of this capstone project will be to analyze the publicly available Chicago crime data for 2020 and present meaningful visualizations. The finding is intended for individuals, families, businesses, and others who, during these uncertain times, are considering relocating to a safer part of Chicago or looking to move into Chicago.

Data Description

Crimes Data: The city of Chicago has collected and makes its crime data easily accessible on its website (Chicago Data Portal, 2020). The dataset used in this analysis is Crimes – 2020, and it is parsed only for crimes that led to an arrest. This dataset reflects reported incidents of crime (with the exception of murders where data exists for each victim) that occurred in the City of Chicago in 2020. A detailed description of this dataset can be obtained from the Chicago Data Portal

Community Area Names: The city of Chicago is divided into 77 community areas for statistical and planning purposes (Wikipedia, 2020). The crimes data file lists community area numbers but not the names. The available table in Wikipedia is pulled and used to match the community area numbers with respective names.

GeoJSON Data: A geojson file (Kaggle, 2020) of the Chicago Community Areas was used to create the choropleth 2020 crime map.

Chicago Geolocation: An online geolocation search (Google, 2020) yielded the latitude and longitude values for Chicago.

Venues info: The Foursquare API (Foursquare, 2020) is the powerhouse used in the gathering of information on surrounding venues for the community areas.

References

- Chicago Data Portal (2020). *Chicago Data Portal*. Retrieved December 26, 2020, from <https://data.cityofchicago.org/browse?q=crimes&sortBy=relevance>
- Foursquare (2020). *Welcome to Foursquare Developers*. Retrieved December 26, 2020, from <https://developer.foursquare.com/developer/>
- Google (2020). *Google*. Retrieved December 28, 2020, from <https://www.google.com/>
- Kaggle (2020). *Chicago Community Areas GeoJSON*. Retrieved December 28, 2020, from <https://www.kaggle.com/doyouevendata/chicago-community-areas-geojson>
- Wikipedia (2020). *Community areas in Chicago*. Retrieved December 28, 2020, from https://en.wikipedia.org/wiki/Community_areas_in_Chicago