



# WHERE SHOULD I LIVE IN LOS ANGELES?

IBM Data Science Specialization

Capstone Project

SERGI SANZ CARRERES

## 1. Introduction

According to U.S. Census Bureau, Los Angeles County still remains the most- populous country across the nation, while the Los Angeles metropolitan area held its ranking as the second most populous metropolitan area in the USA. Only in 2016, the city gained approximately 60,000 new residents. This illustrates how popular and attractive Los Angeles is, which is very easy to understand, taking into account its climate, economy, geographical position and openness.

However, the number of violent crime is still relatively high in Los Angeles compared to other cities in the USA. Therefore, for a person willing to move to Los Angeles, one of the most important criteria when choosing a place to live is how safe its neighborhoods are. The relevant information may be what are the most common crimes in each neighborhood, how similar neighborhoods are, and how many crimes eventually end up in arrest.

Another important criterion is the proximity of different entertainment spots, such as recreational area, nightclubs, restaurants, galleries, museums, and cinemas. In this project, I want to help people find good and safe neighborhoods in Los Angeles. However, people are very different and have different taste, but for the purpose of this project, I am assuming that a potential new resident is a young person interested in neighborhoods that are safe and that provide good opportunities for nightlife. More concretely, when comparing neighborhoods I am focusing on the following criteria:

- Types and frequency of crimes in each neighborhood: the rationale is that a potential resident would like to avoid areas with frequent crimes such as murders, bomb scares and assaults with deadly weapons.
- Efficiency of the police in each neighborhood: how many crimes ended in arrest.
- Thenumberofgoodnightclubs,bars,andrestaurantsinthearea.Let's assume that a potential resident is especially interested in Mexican and Italian cuisine.

Visiting and living in Los Angeles can be a great experience if we choose the right neighborhoods to stay.

## 2. Data

To get data on crimes in Los Angeles I choose data.gov website, which is the home of the U.S. Government open data. The following link gives the .csv file with crime data in LA from 2010:

<https://data.lacity.org/api/views/y8tr-7khq/rows.csv?accessType=DOWNLOAD>

The last update was done in August 2018, and since the crime rate was declining in Los Angeles in the past few years, I will focus only on data in 2017 and 2018.

For each occurrence of a crime, the data contain the following information:

- DRNumber
- DateReported
- DateOccurred
- Time Occurred
- Area ID
- Area Name
- Reporting District
- Crime Code
- Crime Code Description
- MOCodes
- VictimAge
- VictimSex
- VictimDescent
- Premise Code
- Premise Description
- Weapon Used Code
- WeaponDescription
- StatusCode
- StatusDescription
- Crime Code 1
- Crime Code 2
- Crime Code 3
- Crime Code 4
- Address
- CrossStreet
- Location

In this project I am interested in the following subset of data:

- Area name
- Crime Code Description
- Status Description: indicates arrest, investigation or others
- Address
- Location (which contains latitude and longitude information)  
To get data on restaurants and clubs I will use Foursquare API.  
Venue categories I am

Interested in are:

- Italian Restaurant
- Mexican Restaurant
- Nightclub
- Bar, particularly: Beach bar, Beer bar, Cocktail Bar and Wine Bar.