Finding A Hot Spot For Having Fun in Frankfurt am Main City

Setareh Behzadi Pishkenari

December 2020

1. Introduction

In this project will try to give an advise and discuss about hot spot for have fun in Frankfurt am Main. Specifically, this report will be targeted to travelers and families or any other people interested in having Fun in Frankfurt am Main city, Germany that they have no idea for an optimal place with any sufficient time, for Example for a day trip or a short trip. I will use my data science powers to generate the most promising neighborhood based on criteria. A spot will then be clearly expressed so that best possible final Place can be chosen by travelers and families or any other people.

Key words: Data science, IBM/Coursera, Foursquare, Frankfurt am Main

1- Data

First of all , I need to collect Data of all Funny Places in Frankfurt am Main including their name, id, location (address, latitude, longitude) then pick up the "hot" neighbor where locates most of the venue. Number of existing Funny places in the neighborhood (any type such as Restaurants, Hotels, Shops, Cafe, Fitness, Games, ...) and their type and location in every neighborhood will be obtained using Foursquare API and applied folium for visualizing a particular neighborhood.

2- Methodology

In this project I will direct my efforts on detecting a spot of Frankfurt am Main, Germany that have more Fun, particularly I will have not limitation my analysis to access area around city.

In first step I have collected the required data: location and category of fun. I have also identified data according to Foursquare categorization. Second step in my analysis will be calculation and exploration of Funny places across different areas of Frankfurt am Main. In third and final step I will focus on most promising spot by spotting the clusters of items we can see which neighborhood has density of Fun places, based on Data from Foursqure. I will present map of all locations created by that using Heatmaps.

3- Execution steps

I import all the tools I need. Now let's Apply my credential ID on Foursquare. I will use Foursquare API to get info on Fun places in neighborhoods. I am interested in venues in 'Fun' category. Then I Transform data into json then request geocode.

4- Results

From the output I can identify necessary factors of what I will use later to consider the probability of launching our up-to-coming location. Based on that we start to organize what we have got. I show here only the 9 first items.

Table 1

	uid	name	shortname	address	postalcode	lat	lng
0	4b058852f964a520bdbe22e3	Erzeugermarkt Konstablerwache	Farmer's Market		60313	50.114516	8.687116
1	57b34f2e498edc52148534fb	Góc Phố	Vietnamese		60311	50.113509	8.681686
2	53e223cf498e2cf5740be372	FITSEVENELEVEN Zeil	Gym / Fitness		60313	50.114163	8.682001
3	4b058852f964a520bfbe22e3	Kleinmarkthalle	Market		60311	50.112778	8.682958
4	4c012d6e9a950f476ca808c6	LEGO Store	Toys & Games		60313	50.114708	8.681621
5	4b05884ef964a5206cbd22e3	Zum Schwejk	Bar		60313	50.115885	8.684775
6	555731f6498e1fab8ac2ad9f	Fein	Café		60313	50.118837	8.685420
7	4b058852f964a520d4be22e3	Peek & Cloppenburg	Apparel		60313	50.114194	8.684896
8	4e11a3be1f6e671dd9e93729	Jumeirah Frankfurt	Hotel		60313	50.114999	8.680512
9	4dbfe3314b2221ec2d638030	AROYDEE Thai Küche	Thai		60313	50.116420	8.680245

As I can see that there are many Fun places without address. I need to execute hasattr() to determine if each object has a attribute (address). Next step I will execute a very important part - get coordinates of Frankfurt am Main and create folium map which will help visualize what I have got from data. coordinates of Frankfurt am Main is equal to: {'lat': 50.11552, 'lng': 8.68417}.

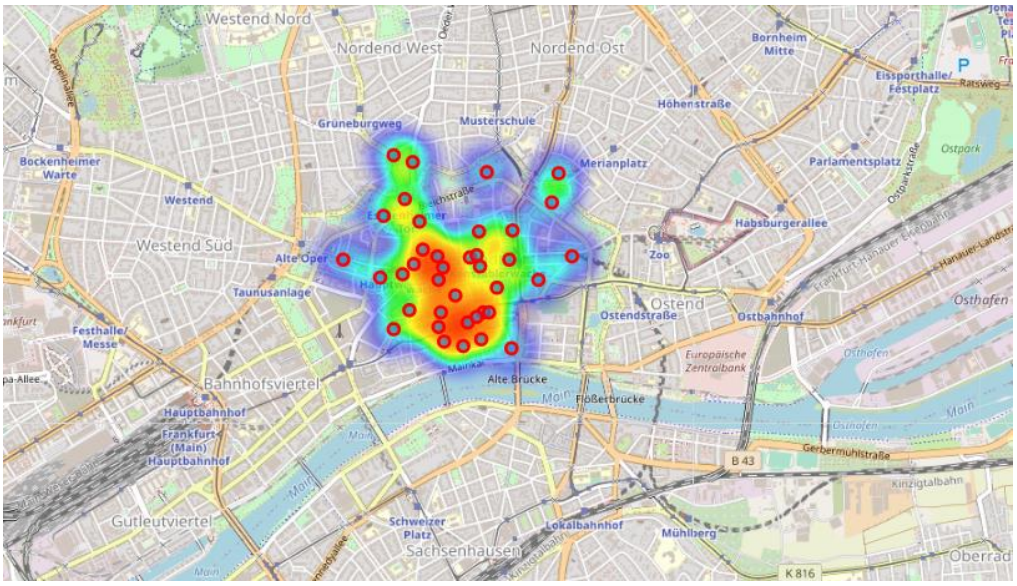

Figure 1

Here is beautiful Frankfurt am Main with little red dots presenting different items. By spotting the clusters of items we can see which neighborhood has density of Fun places.

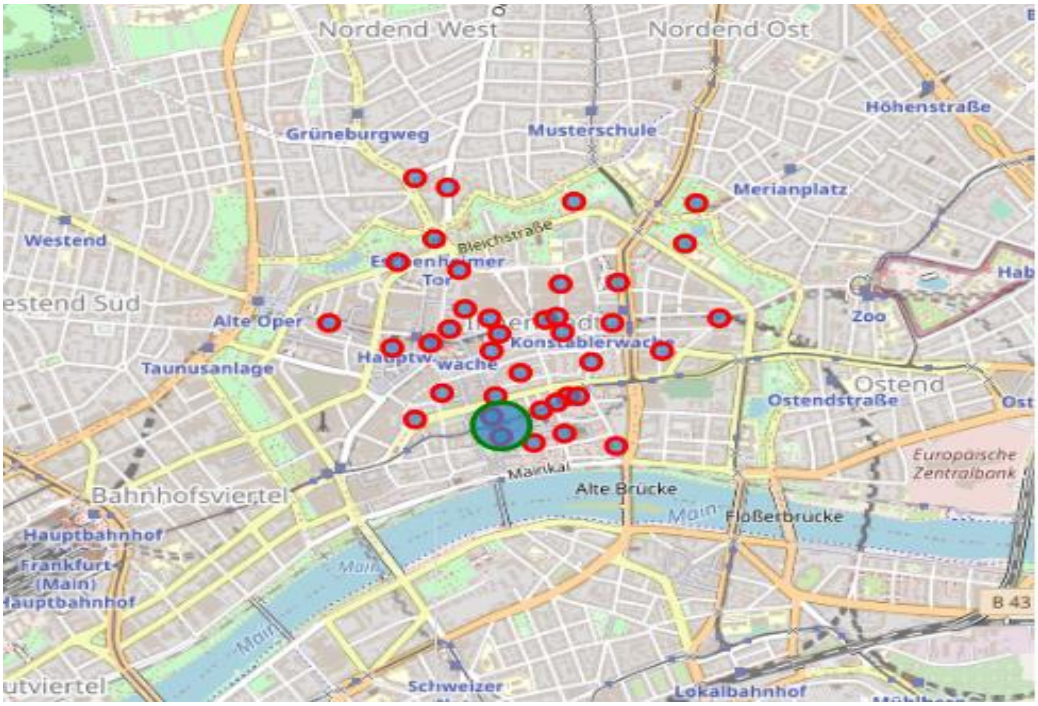

Figure 2

We will need a location where we can catch out optimal Fun place. Look at the blue buble, here we find out that it will recommend going about the crossroad on Paulsplatz street. This neighborhood is safe and right at the center to have a funny Plan.

5- Conclusion

Purpose of this project was to identify optimal Funny location in order to aid and to give advises to travelers and families or any other people interested in having Fun in Frankfurt am Main city, Germany for a short time. Final decision on optimal Fun location will be made by stakeholders based on specific characteristics of neighborhoods and locations in every recommended zone, taking into consideration additional factors like famous and attraction of each place, prices and so on .

6- References

1- *IBM/Coursera*

2- *Foursquare*