

The best location to open a *Frites Atelier* in Firenze, Italy

Edoardo Saldarelli

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1) Introduction

1.1 – Background:

The aim of this project is to evaluate, locate and visualize the most optimal location where to run a Frites Atelier business in the city of Firenze (*Florence*), Italy. Overall, it is difficult to find a precise definition of Frites Atelier: therefore, it is simpler to define a Frites Atelier as a peculiar kind of food service business, where products are mainly potato-based. Moreover, they differ from the usual chip stores based on a more sophisticated usage of ingredients (such as spices, herbs, flavors, sauces) as well as the potatoes quality and processing.

The city of Florence is considered as a real “battleground” for food service businesses primarily due to its popularity among tourists from all over the world, but also keeping a strong relation with the Italian food culture, enriched by the typical food tradition on the city itself.

Tourism is the main source of income for the city and it usually includes around 10 million tourists’ arrivals every year, making Florence one of the most visited cities country wide.

1.2 – Problem:

Due to the huge and mutable food service network of the city, it would be hard to determine the best location for such a particular business. However, this project has found out what and where this location could be, thanks to some Data Science techniques described in the “*IBM Data Science - Professional Certificate*” course on Coursera, mainly related to Data Analysis, Geospatial Data Visualization with Python and Foursquare API analysis.

For the sake of this project, it is essential to state below the main parameters considered to be crucial for the research:

- **Cluster division of the 5 neighborhoods of Florence, splitting neighborhoods (“*Quartieri*”) and districts (“*Circoscrizioni*”)**
- **Population divided and explored by neighborhood**
- **Number of Italian Restaurants explored by neighborhood**
- **Number of Street Food stores explored by neighborhood (such as kebab stores, chip stores and any sort of street food-oriented business)**
- **Rental prices calculated per districts and also per neighborhood**
- **Distance in KMs from the historic center of the city: the main core business of Florence**

1.3 – Data Science Strategies

I have performed various analysis on the project and the majority of them have been sorted out from a geospatial data visualization of Florence, on which the locations of each neighborhood have been found through Foursquare API together with data related to the above-mentioned

parameters. As per the next steps, data collection, analysis and cleansing have been the final processes: their evidence will support the conclusion of this project.

2) Project Development and Results

2.1 – DataFrame:

The whole project has been aligned with the numerical results found afterwards the Data Analysis of each neighborhood and their related data, therefore it has played a key role in drawing the conclusions. Below the dataframe:

	Neighborhoods	Districts	Population	Latitude	Longitude	N. of Restaurants	N. Street Food places	Average rent € m/2	Distance from the Center of Florence (km)
0	Centro Storico	Centro Storico · Il Prato · Fortezza da Basso ...	67.170	43.76941	11.25900	30	28	18.25	0.0
1	Campo di Marte	Campo di Marte · Le Cure · Viali · Bellariva ...	88.588	43.78149	11.28196	13	3	14.68	2.6
2	Gavinana-Galluzzo	Gavinana · Galluzzo · San Gaggio · Collina sud...	40.907	43.74656	11.25732	2	0	15.12	3.4
3	Isolotto-Legnaia	Isolotto · Legnaia · Ardingrosso · Cintoia · I...	66.636	43.77399	11.19830	3	0	11.72	5.4
4	Rifredi	Statuto · Romito · Viali · Fortezza da Basso ...	103.761	43.80260	11.21329	16	1	14.00	6.2