

The Battle of Neighbourhoods — Capstone Project



As part of the final project for the *IBM Data Science Professional Certificate*, I have chosen to explore italian restaurants in the city of Naples.

1. Introduction

Imagine yourself arriving in a beautiful city, for work or on holidays.

Here we will consider one of the most beautiful places in Italy, the city of Naples. You booked an hotel in the centre of the city, and for your launch and dinner you'll have to choose one of the restaurants, possibly close to your hotel. How could you make this choice?

We will pick up some important data about the hotel, such as the location data, the price and the quality of the restaurant.

Then we can process this data and make use of non-supervised machine learning techniques to clusterize the hotels, visualize them, and make some considerations about the suitable restaurants to your needs.

2. Data

This project relies on public data from Foursquare API.

In detail we get:

- Geographic data (latitude and longitude) of the restaurants
- Class price of the restaurants (1-4, 1 cheapest)
- Average rating (1-10)
- Number of likes, another indicator of preference

This is an example of the main dataframe:

	venue	lat	lng	rating	price	likes
0	Edy	41.908835	12.479010	8.2	3	39
1	Babette Bar and Restaurant	41.909713	12.478268	8.1	3	45
2	Hi-Res Restaurant & Terrace Lounge	41.909372	12.477680	8.0	3	73
3	La Buca di Ripetta	41.908378	12.476012	8.3	3	56
4	Ristorante Mirabelle	41.907921	12.486787	8.4	3	98
5	RISTORANTE IL PICCOLO MONDO	41.907574	12.487575	8.2	3	57
6	Canova	41.910830	12.477260	7.6	2	278
7	Il Vero Alfredo	41.905962	12.477533	8.1	2	405
8	Ristorante Andrea	41.909045	12.489692	8.4	3	14
9	Ginger sapori e salute	41.904178	12.479482	8.5	2	741
10	Ristorante Il Gabriello	41.906916	12.479831	7.7	3	30