Location Recommendation for Coffee Shops Based on Foursquare Data

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1. Introduction

1.1Background

For offline physical stores, in addition to brand positioning, the first step of business development is to choose a location to open stores. As the core element of entry level in the competition conditions of physical restaurant industry, the address has natural spatial barriers. A good location can bring considerable customer flow and greatly increase turnover for the enterprise, which is also a great competitive advantage and intangible assets. Therefore, it is crucial to find out where is the appropriate places to establish the stores, especially for coffee shops.

1.2Problem

First of all, the success of a store depends on the quality of the property itself in addition to the surrounding consumer characteristics, such as whether it is convenient to enter, whether the door head is eye–catching enough, the area and rent the landlord can provide, and the management level of its own personnel. In my experience, these factors account for 60 percent in China.

Machine learning trains for variables that can be uniformly accessed without subjective factors. However, the collection process of a large number of variables containing subjective factors is manually selected. No matter how intelligent a machine is, it cannot predict the rentable area of a new location or whether the door head can be seen from all directions, so artificial intelligence is powerless.

Secondly, a very important story in the site selection is how to avoid cannibalization between sister stores, especially chain enterprises.

1.3interest

Once the location of a coffee shop has been chosen, it would costs considerable resource to change. Besides location of the store is linked to the customer flow, environment, customer type, etc., a series of factors on the income of the shop. It is vital for the shop owner to choose an appropriate place for business.

2.Data Source and Description

2.1Data acquisition and source

The Foursquare provided a series of API, which can help to obtain related geography information in Toronto including the location, name ,cartography, rating.

2.2 Usage of the data

Having considered that Toronto is a metropolis, which contains a bunch of existing coffee shop or restaurant providing similar drinks, it is convenient to take advantage of those venues' information to help on the location choosing.

Location: Using the location data of the venues, a distribution of cafes and densely populated area can be drawn.

Environment: Exploring existing coffee shops with high rating score to know what kinds of venues consists of the environment of a good coffee shop.

Popularity: Foursquare venue API can provide the rating score and number of likes of the venue. By collecting and rank the shops with different colors, a heat map can be drawn to find the most popular place voting by the consumers without considering the diverse factors.

The above method is particularly suitable for brand owners who want to launch the brand's first store in a strange city. The operation of the store completely affects the brand's influence in the city, but due to the unfamiliarity with the city and the difficulty in obtaining information, it is often difficult to find the best location. And the heat map of the whole city hit the nail on the head.