

# Toronto Coffee Quality by Neighborhood and its Influence on Perception

Tanner Clark

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## Introduction

Coffee is the millennial wine. There are casual drinkers, morning drinkers, late-night drinkers, and drinkers who can allegedly differentiate between an African and South American bean. Much like wine tastings, there are coffee tastings. Like most big cities, Toronto is no exception to the coffee craze. With coffee shops on every corner, how would you know which coffee is best? Luckily, we have things like Google Maps to determine quality.

But suppose you are a coffee fanatic. You are so far gone that the highest quality coffee is the only way you get your fix. Wouldn't you want to live near the best coffee places? In this data analysis, we look at all the coffee shops in Toronto and determine the average coffee quality by neighborhood. Then, we see if the distance to other coffee shops has any influence on the quality, or perceived quality of the coffee.

## Data

Data is first gathered from the Toronto neighborhood listings. Then, the neighborhood center point is used to collect coffee shops in a certain radius. This is done using the Foursquare API. If a coffee shop is in two neighborhoods, it is put in the neighborhood that is closer. Then, a mean is generated. For the regression portion, distances are measured between coffee shops. These are recorded.

## Methodology

The mean of each neighborhood was easily determined. To determine if the distance between two coffee shops has any influence on the quality of the coffee, we used a multiple variable regression model. This machine learning algorithm is tailored to determine which, if any, variable is important in predicting the quality.

## Results

The mean of the coffee was found accurately and displayed on a map. The distance/quality problem was almost inconclusive. However, with slight correlation, the mean of the quality of coffee in a neighborhood is the most influential predictor for the individual quality of the coffee. Furthermore, even after removing the value in question, if the mean of the quality of coffee is higher in a neighborhood, there is a higher probability that the predicted value's coffee is of higher quality. The distances to other higher or lower quality coffee shops have little to no influence on the quality of the predicted quality. The number of coffee shops in a neighborhood has no influence either.

## Discussion

Interestingly enough, if you were a coffee shop owner, setting up shop in a neighborhood that has higher quality coffee could have an influence on your coffee's quality. It also might not matter how many shops, or competitions, there are in the area you would like to open store. This could be that coffee shops whose coffee is of lower quality cannot compete with the higher quality coffee, thus forcing them out of business.

For the fanatics, living in a neighborhood that has a higher average mean of quality could influence the coffee's perceived quality. It could also influence new shops that come into that neighborhood. More importantly, the fanatic would want to live where the average quality is higher.

## Conclusion

In conclusion, coffee quality of coffee shops in Toronto may have to do with factors besides the quality of the coffee. Findings reveal that the quality mean of a certain neighborhood could influence the quality. This could be because of multiple reasons, including that the coffee is actually better. But for any coffee fanatics, this study serves as a reference for any addicts that are planning on living in Toronto. It also, though trivial, reminds fanatics to live in neighborhoods where coffee quality is higher. That is, if you want better coffee.