

**Coursera IBM Data Science Capstone Project**

**Shall we open a new Vietnamese restaurant in Toronto**

Cuong Do

## Introduction

Vietnamese food is not only delicious but also healthy, thus I would like to recommend it to the community in Toronto. I suppose there may not be enough Vietnamese restaurants in Toronto and it might present a great opportunity for this entrepreneur who is based in Canada. As Vietnamese food is very similar to other Asian cuisines, this entrepreneur is thinking of opening this restaurant in locations where Asian food is popular (aka many Asian restaurants in the neighborhood). With the purpose in mind, finding the location to open such a restaurant is one of the most important decisions for this entrepreneur and I am designing this project to help him find the most suitable location.

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Shall we open a new Vietnamese restaurant in Toronto

### **Business Problem**

The objective of this capstone project is to find the most suitable location for the entrepreneur to open a new Vietnamese restaurant in Toronto, Canada. By using data science methods and machine learning methods such as clustering, this project aims to provide solutions to answer the business question: In Toronto, if an entrepreneur wants to open a Vietnamese restaurant, where should they consider opening it?

### **Target Audience**

The entrepreneur who wants to find the location to open authentic Vietnamese restaurant

### **Data**

To solve this problem, we will need below data:

- List of neighborhoods in Toronto, Canada.
- Latitude and Longitude of these neighborhoods.
- Venue data related to Asian restaurants. This will help us find the neighborhoods that are most suitable to open a Vietnamese restaurant.

### **Extracting the data**

- Scrapping of Toronto neighborhoods via Wikipedia
- Getting Latitude and Longitude data of these neighborhoods via Geocoder package
- Using Foursquare API to get venue data related to these neighborhoods