

Finding alternative cities to live in the Northwest US

IBM Applied Data Science Capstone Project

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March 2019

Introduction

Background

Over the past decade, Seattle has led other metropolitan cities as the fastest growing city in the United States[1]. Such rapid growth, however, has caused a general sense of crowding and displacement for existing residents[2], particularly those who were first drawn to the area for its "small city" character and affordable housing[3]. This real estate boom has not been limited to the greater Seattle area. Housing prices across the entire state of Washington have undergone unprecedented growth[4].

Problem

The steep rise in the cost of living is starting to compell a number of Washington residents to seek alternative places to live, particularly those who are able to telecommute and/or whose job prospects aren't tied to a particular location and retirees. The question for this subset of people is *how to even get started browsing prospective places to move*, as Washington State alone has 211 cities[5].

To answer this question, we'll start with the assumption that greater Seattle residents looking to move are still interested in living in the Northwest US and seek to find alternative cities with similar amenities as their current one. Given this scope, we can sample the superset of cities in Washington and adjacent states (Oregon and Idaho) to create a kind of "fingerprint" of popular venues (such as certain types of restaurants, stores and natural areas) for each city, and then use this to identify potential similarities with other cities. The findings of this exercise could then be used as a recommendation guide for further, in-person real estate research.

Audience

The primary audience of this study might include realators and potential home buyers/renters in the Northwest (Washington/Idaho/Oregon) region. The findings could also be used by Northwest entrepreneurs looking to open new businesses or even a way of fostering outreach and partnerships among Northwest municipal chambers of commerce.

Data

Sources

To obtain a list of Northwest cities, we'll scrape Wikipedia for a list of cities in Washington[5], Oregon[6] and Idaho[7]. We'll use the Foursquare venue recommendation API[8] to obtain a list of the most

popular venues for each city and query location data (latitude/longitude) using the Mapquest Geocoding API[9] in order to map all the cities and visualize the clusters.

Footnotes

[1] <https://www.seattletimes.com/seattle-news/data/114000-more-people-seattle-now-this-decades-fastest-growing-big-city-in-all-of-united-states/>

[2] <https://www.seattletimes.com/pacific-nw-magazine/surviving-seattles-sidewalks-pedestrian-rage-rises-as-the-population-grows/>

[3] For example, <https://www.seattletimes.com/opinion/after-14-years-ive-had-it-im-leaving-seattle/>

[4] <https://www.seattletimes.com/business/home-prices-rising-faster-in-washington-than-in-any-other-state/>

[5] https://en.wikipedia.org/wiki/List_of_cities_and_towns_in_Washington

[6] https://en.wikipedia.org/wiki/List_of_cities_in_Oregon

[7] https://en.wikipedia.org/wiki/List_of_cities_in_Idaho

[8] <https://developer.foursquare.com/docs/api/venues/explore>

[9] <https://developer.mapquest.com/documentation/geocoding-api/>