

IBM Data Science Capstone Project

Operating a rickshaw in Stockholm

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Introduction

Background

In Stockholm, Sweden's capital, you find cobblestone streets and ochre-colored buildings. The greater area contains about 50 bridges stretching over about 14 islands which are connected also by ferries and sightseeing boats shuttle passengers. To this mode of transport, it shall be evaluated to add transport by rickshaw.

Problem

More and more traffic congestions exist in Stockholm due to the number of cars using the limited resource streets.



Figure 1 Potential rickshaw model for Stockholm

A potential solution for that is me operating a rickshaw to transport people in between Stockholm's hotspots. This project shall evaluate data available from foursquare.com to figure out where to best position my rickshaw.

Data

For this project the foursquare API will be used to fetch, analyze and use the available data.

reasons.count	reasons.items	referralId	venue.categories	venue.id	venue.location.address	venue.location.cc	venue.location.city	venue.location.country	venue.location.crossStreet	venue.location.labeledLatLngs	venue.location.lat	venue.location.lng	venue
0	0	4b089b9964a5206f422a30	4b58d5d4388d114951735	4b089b9964a5206f422a30	Västerlånggatan 48	SE	Stockholm	Sverige	Gamla Stan	[[{"label": "display", "lat": 59.3240467940319, "lng": 18.070682}]]	59.324047	18.070682	
1	0	514c0888e4b07a3d5a2fca3-1	4b58d5d4388d114951735	514c0888e4b07a3d5a2fca3	Lilla Nygatan 16	SE	Stockholm	Sverige	Nali	[[{"label": "display", "lat": 59.32334236889204, "lng": 18.069431}]]	59.323342	18.069431	
2	0	549447b488ed7c331906c2-2	4b58d5d4388d114951735	549447b488ed7c331906c2	Stora Nygatan 20	SE	Stockholm	Sverige	Västerlånggatan	[[{"label": "display", "lat": 59.324685, "lng": 18.069513}]]	59.324685	18.069513	
3	0	534d0a34488e7f2062a2d9c-3	4b58d5d4388d114951735	534d0a34488e7f2062a2d9c	Osterlånggatan 1	SE	Stockholm	Sverige	Nali	[[{"label": "display", "lat": 59.32594, "lng": 18.073710}]]	59.325940	18.073710	

Figure 2: Foursquare data

We try to utilize the following fields.

Field	Explanation	Usage
id	A unique string identifier for this location (foursquare calls venue)	To be evaluated
name	Name of the location	To be evaluated
location	An object containing coordinates of the location	To be evaluated
categories	An array containing descriptive information about the location	To be evaluated
reason	An array containing a summary of the place	To be evaluated

To evaluate and identify potential rickshaw locations, we re-classify and plot the foursquare data onto maps views to visualize the results.

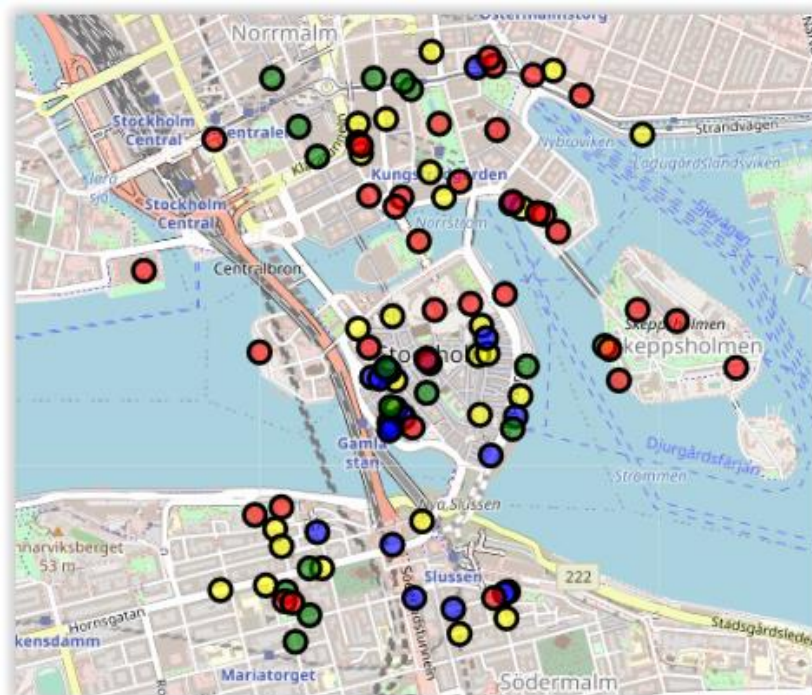


Figure 3: Preview of location analysis