MONTREAL ON BIKE

Montreal Guide:

The better way to enjoy your visit to Montreal on a bike!

The best way to visit Montreal is by Bixi, a local bike-sharing system

Reduce expenses and stress by not worrying about parking

Be kind to the environment

Staying fit

BEST LOCATIONS TO VISIT THE MOST TRENDING VENUES

The purpose of this study is to determine the best Bixi docking station locations that have the highest number popular venues and activities nearby, in order to maximize your days spent in Montreal.

Methodology

This section lists the data exploratory analysis which was used to obtain the final result.

Pre-pocessing data

- Retreive information on Bixi docking stations and save to table (Source: https://www.bixi.com/en/open-data)
- Retreive top 100 trending venues within 20 km radius from city center and dave to table (Source: Foursquare)

Combine pertinent information from both tables into one table

- Includes station names and locations (latitude and longitude), venue names, category and locations (latitude and longitude)
- A column was added to indicate the distance between each venue and docking station

Filtering the data for more meaningful results

- The information was then filtered to keep only the venues within a 100 meter radius of a docking station
- It was then filtered again to keep only unique venues

Methodology (cont'd)

K-means algorithm

- K-means HDBSCAN was used to cluster the venues by location

Plot venues by cluster and docking stations nearby

Select representative docking stations

- Visually select one docking station per cluster that is most central to each venue in that cluster, or the station with the most venues nearby.

Final result

The final result is a total of 39 trending venues in 8 clusters, with the following representative docking stations per cluster:
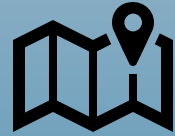
- *Cluster 1*: Marche Atwater
- *Cluster 2*: Waverly/St-Viateur
- *Cluster 3*: Square Philips
- *Cluster 4*: Milton/Clark
- *Cluster 5*: de la Montagne/Sherbrooke,
- *Cluster 6*: Stanley/St-Catherine
- *Cluster 7*: Clark/Rachel
- *Cluster 8*: Napoléon / St-Dominique

The map on the right represents the trending venues by cluster, and the chosen docking stations.

The next step is yours to take...

🗺️	Decide on a location
📍	Ride and park your bike at that location
🥾	Visit all trending venues nearby

THANK YOU

Enjoy your stay in Montreal!