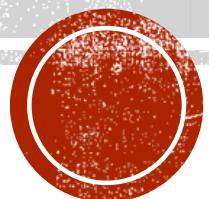


BUSINESS CHOICE AND DATA ANALYSIS OF BEIJING



INTRODUCTION



- Beijing is divided into 16 districts
- Problem:
 - Situation: a business investor decides to start new business in Beijing
 - Question:
 - Which districts would be a better choice?
 - Which type of business can be started in the corresponding area?



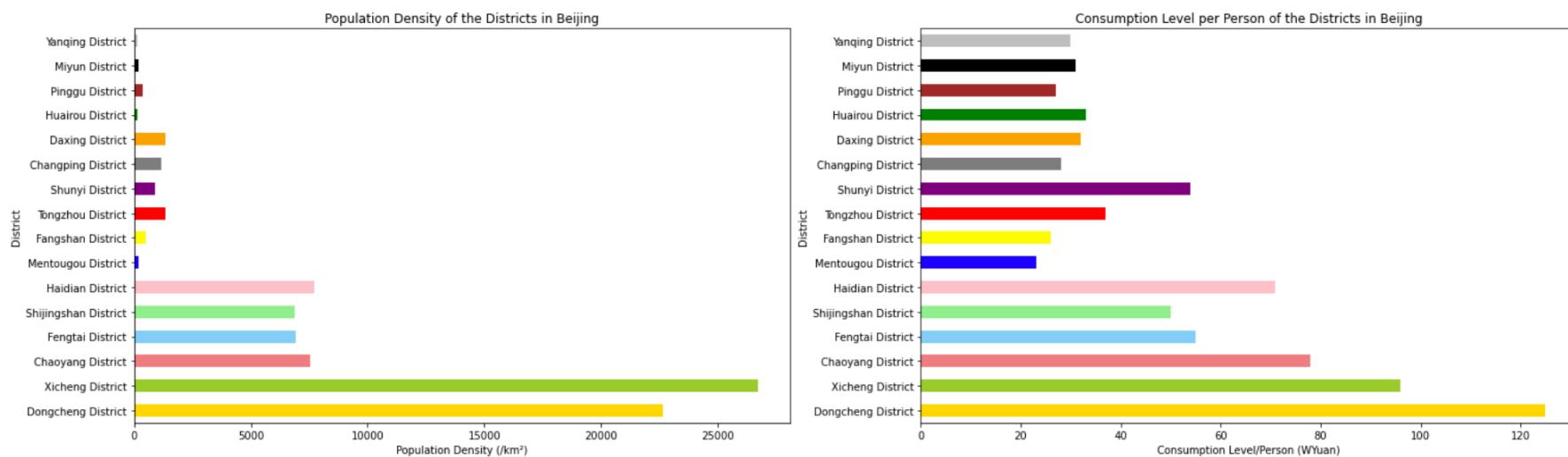
DATA DESCRIPTION

- The basic data of Beijing –Wikipedia
- "Total Retail Sales of Consumer Goods"(TRSCG)
- The geo.json file can be obtained from Aliyun
- Google Map & OpenStreetMap
- Foursquare API



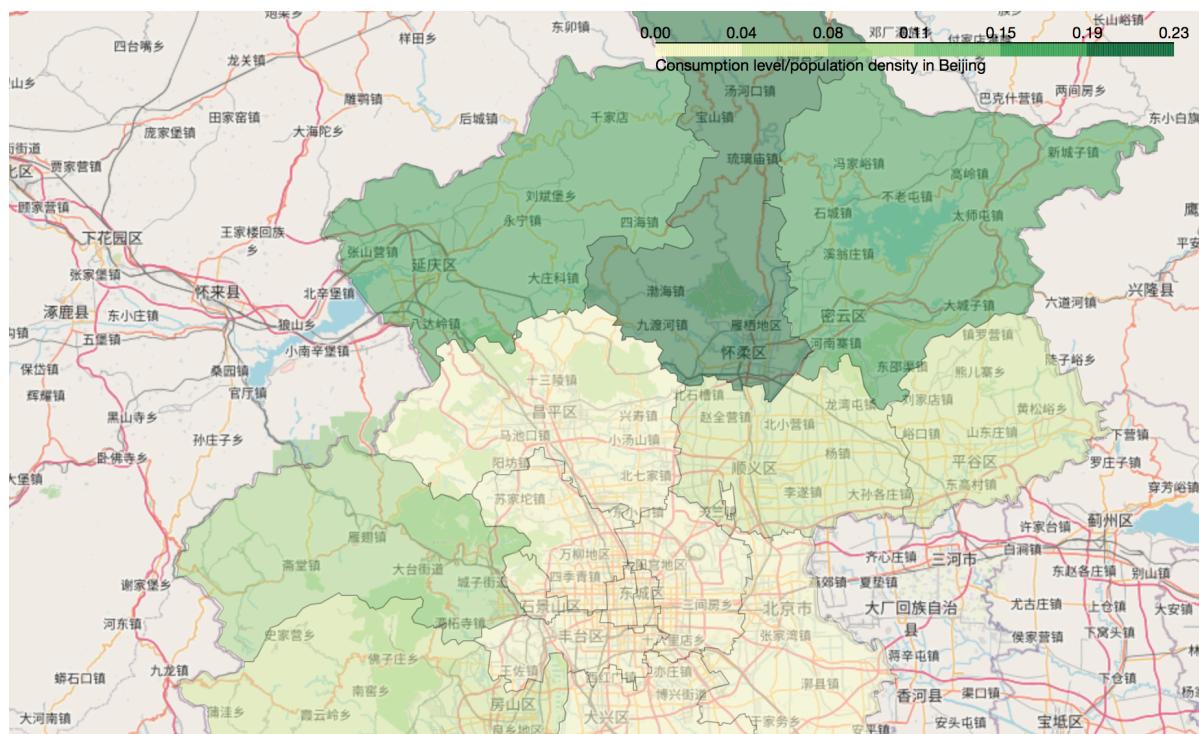
METHODOLOGY

- **Figure Comparison between population density and consumption level in each districts**



METHODOLOGY

- #### ▪ **Figure Attractiveness of each district for business investor**

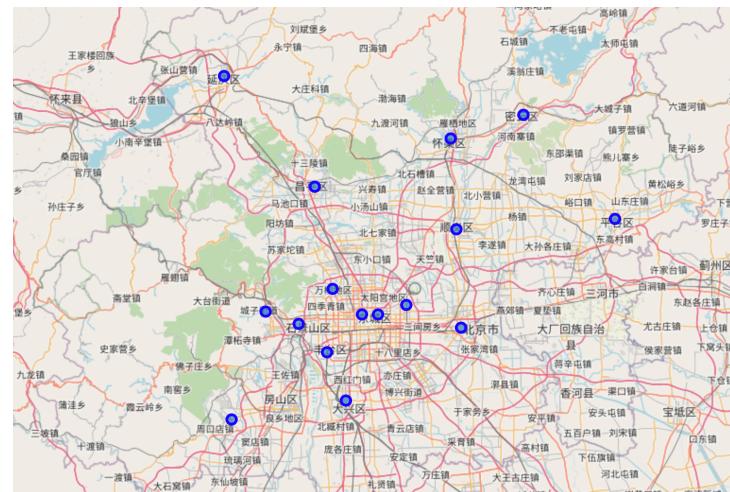


METHODOLOGY

- **Figure Attractiveness of each district for business investor**

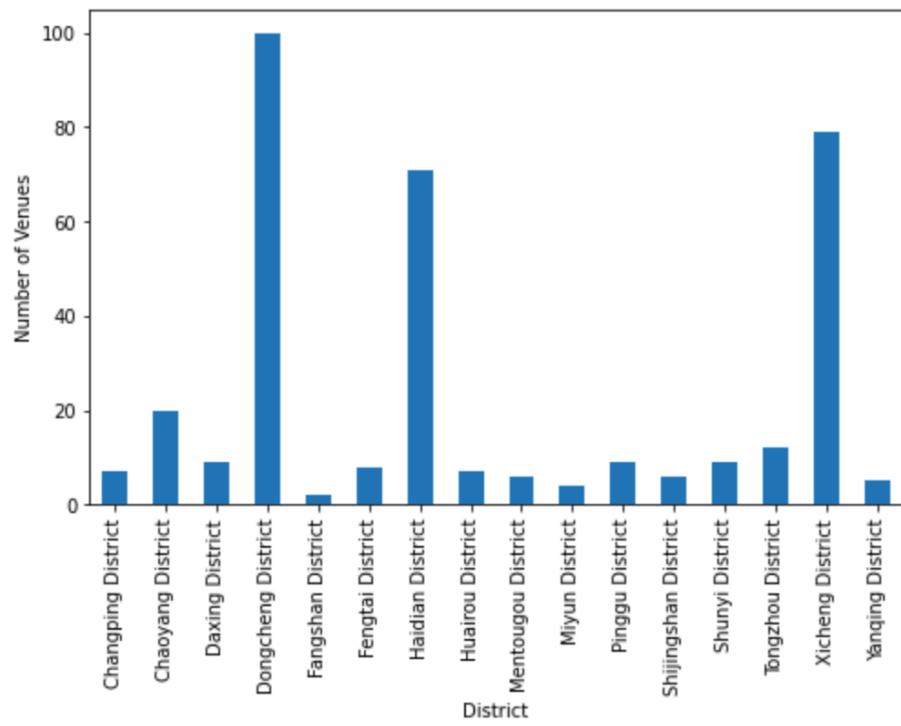
	District	Latitude	Longitude	Density (/km ²)	Consumption Level/Person(WYuan)
0	Dongcheng District	39.93264	116.41834	22635	125
1	Xicheng District	39.93317	116.37337	26731	96
2	Chaoyang District	39.95462	116.50290	7530	78
3	Fengtai District	39.84757	116.27227	6943	55
4	Shijingshan District	39.91124	116.18766	6860	50

- **Table Geographic coordinates of each districts in Beijing**



METHODOLOGY

- **Figure Number of venues of different districts in Beijing**



- **Dongcheng District, Xicheng District and Haidian District gain more venues**
- **The venues of other districts are much less**



METHODOLOGY

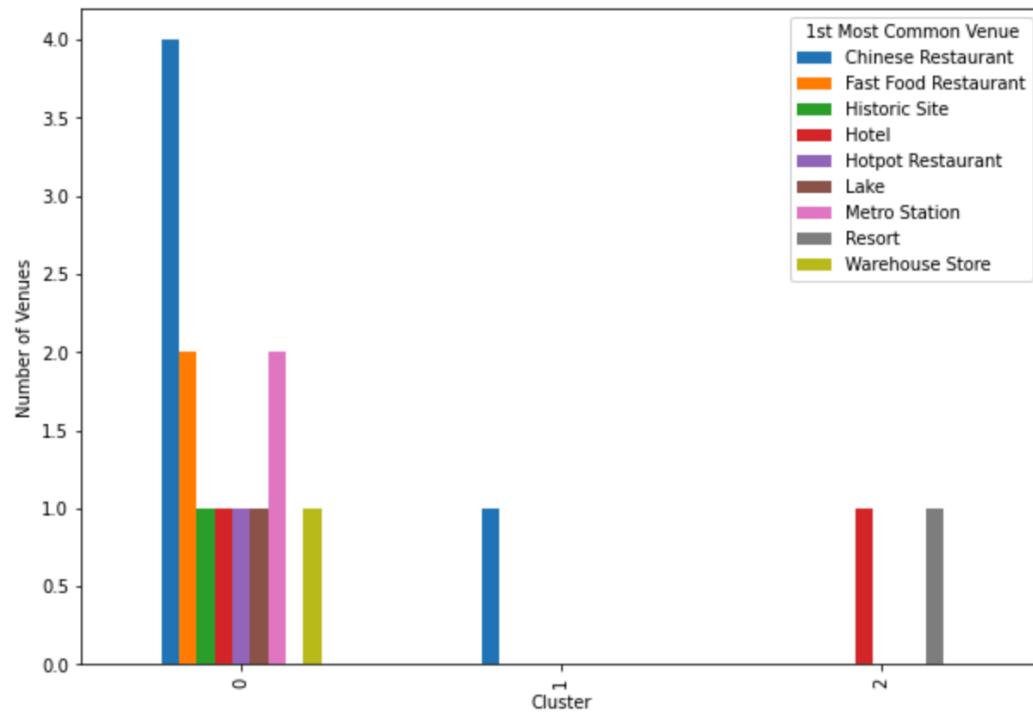
- **Table 10 most common venues in each district**

	District	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
0	Changping District	Chinese Restaurant	Train Station	Park	Shopping Mall	Clothing Store	Asian Restaurant	Hotpot Restaurant	Food & Drink Shop	Concert Hall	Convenience Store
1	Chaoyang District	Chinese Restaurant	Park	Café	Fast Food Restaurant	Flower Shop	Shopping Mall	Supermarket	Tennis Stadium	Shop & Service	Grocery Store
2	Daxing District	Metro Station	Chinese Restaurant	Convenience Store	Hotel	Pizza Place	Shop & Service	Shopping Mall	Fast Food Restaurant	Yunnan Restaurant	French Restaurant
3	Dongcheng District	Hotel	Chinese Restaurant	Coffee Shop	Café	Hostel	Bar	Szechuan Restaurant	Yunnan Restaurant	BBQ Joint	Vegetarian / Vegan Restaurant
4	Fangshan District	Chinese Restaurant	Shipping Store	Yunnan Restaurant	Frozen Yogurt Shop	Concert Hall	Convenience Store	Coworking Space	Department Store	Dumpling Restaurant	Fast Food Restaurant



METHODOLOGY

- **Figure Venues of Different Districts in Beijing**

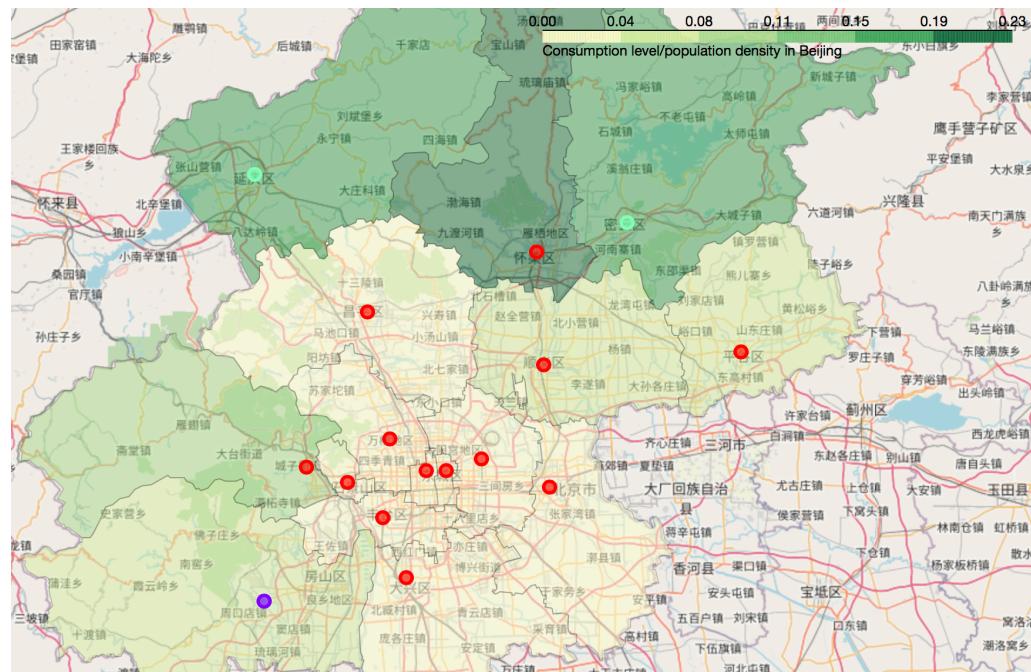


- **Cluster 0: "multi-function-district"**
- **Cluster 1: "restaurant-district"**
- **Cluster 2: "hotel-tourist-district"**



RESULT

- **Figure Clusters of districts in Beijing**

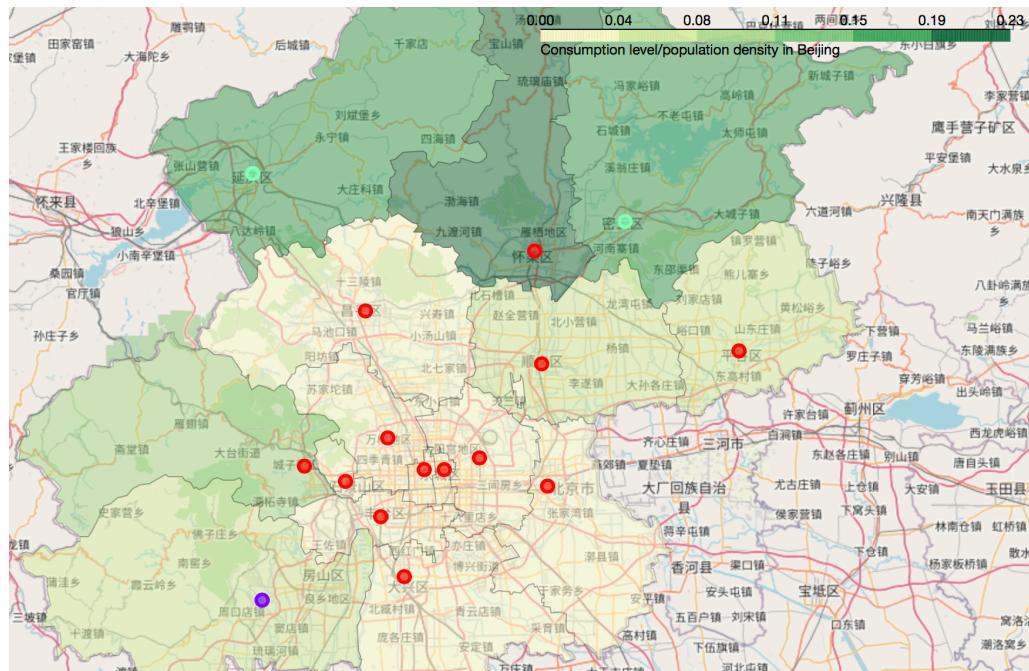


- **Red points:**
 - cluster 0 "multi-function-district"
- **Purple point:**
 - cluster 1 "restaurant-district"
- **Green points:**
 - cluster 2 "hotel-tourist-district"
- **Area filled with color green:**
 - The darker the color is, the more attractive the district is.



DISCUSSION

- **Figure Clusters of districts in Beijing**



- **Attractive places for business-start:**
 - Huairou District
 - Miyun District
 - Yanqing District
- **Choices of business type:**
 - Huairou District-not Chinese Restaurant
 - Miyun District&Yanqing District: -“Hotel-Tourist-District”- many choices



CONCLUSION

- Data analysis for business investor to start his business
- Data analysis method is very important
- Further study: pay more attention on data analysis

