

DATA

The data is essential for any machine learning model. This is important that data is valuable because with wrong data the model predict wrong values so this is very important for us to take data from the good source.

For my project I have decided to use foursquare because it will be produce best result that for the type of my project and it would be beneficial for my client as well.



Foursquare developer portal

My case study revolves around two cities Toronto and Tokyo. From foursquare developer portal I will collect a .json file for Toronto and Tokyo. The json file for Toronto,CA is shown below;

```
In [18]: results = requests.get(url).json()
results
```

```
Out[18]: {'meta': {'code': 200, 'requestId': '5ebd2bfe006dce001c8504e1'},
  'response': {'venues': [{'id': '4f04779a02d5cce0cfc06151',
    'name': 'Chinese Visa Application Service Center',
    'location': {'address': '393 University Ave, Suite 1501',
      'crossStreet': 'in University Centre',
      'lat': 43.65402839343005,
      'lng': -79.38736458967021,
      'labeledLatLngs': [{'label': 'display',
        'lat': 43.65402839343005,
        'lng': -79.38736458967021}],
      'distance': 282,
      'cc': 'CA',
      'city': 'Toronto',
      'state': 'ON',
      'country': 'Canada',
      'formattedAddress': ['393 University Ave, Suite 1501 (in University Centre)',
        'Toronto ON',
        'Canada']}]}
```

From this json file I will extract the information about the Chinese restaurants and hotel because my client wants to open a Chinese venue in one of the cities. The data frame is shown below;

dataframe_filtered													
	name	categories	address	crossStreet	lat	lng	labeledLatLngs	distance	cc	city	state	country	1
0	Chinese Visa Application Service Center	Government Building	393 University Ave, Suite 1501	in University Centre	43.654028	-79.387365	[{"label": "display", "lat": 43.65402839343005, "lng": -79.38736458967021}]	282	CA	Toronto	ON	Canada	
1	Toronto Chinese Academy	University	133 Richmond Street West	York Street	43.650140	-79.384857	[{"label": "display", "lat": 43.65014006138457, "lng": -79.38485700000001}]	379	CA	Toronto	ON	Canada	
2	Yueh Tung Chinese Restaurant	Chinese Restaurant	126 Elizabeth St.	Dundas St.	43.655281	-79.385337	[{"label": "display", "lat": 43.65528126342919, "lng": -79.38533700000001}]	229	CA	Toronto	ON	Canada	
3	Hong Shing Chinese Restaurant	Chinese Restaurant	195 Dundas St W	at University Ave	43.654925	-79.387089	[{"label": "display", "lat": 43.65492521335936, "lng": -79.38708900000001}]	300	CA	Toronto	ON	Canada	
4	Tasty Chinese Food	Chinese Restaurant	Village by the Grange	NaN	43.653757	-79.390757	[{"label": "display", "lat": 43.65375663396815, "lng": -79.39075700000001}]	550	CA	Toronto	ON	Canada	