In [5]:

```
import pandas as pd
from scipy import stats
import plotly.express as px
import matplotlib
import math
poi_gpd=pd. read_pickle('C:\\Users\\23261\\Desktop\zx. pkl')#已经存储为. pkl格式的POI数据,其中包括geom
poi_gpd.plot(marker=".", markersize=5)
poi_coordinates=poi_gpd[['location_lng', 'location_lat']]. to_numpy().T #根据stats.gaussian kde()输入
poi_coordi_kernel=stats.gaussian_kde(poi_coordinates) #核密度估计
poi_gpd['poi_kde']=poi_coordi_kernel(poi_coordinates)
poi_gpd. shopinfo=poi_gpd. shopinfo. fillna(0)
mapbox_token='pk.eyJ1IjoicmljaG11YmFvIiwiYSI6ImNrYjB3N2NyMzB1MG8yc254dTRzNnMyeHMifQ.QT7MdjQKs9Y6OtaJ
px. set_mapbox_access_token(mapbox_token)
fig=px. scatter mapbox (poi gpd, lat=poi gpd. location lat, lon=poi gpd. location lng, color='poi kde', col
fig. show()
poi_gpd.head()
                                          location lat=34.19715
                                          location Ing=109.212
                                          poi kde=9.375261954104612
            Baoli
```

In []: