

A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a blue gradient background, resembling a circuit board or neural network structure.

COURSERA FINAL PROJECT

MACHINE LEARNING CAPSTONE

BACKGROUND

- There are currently many beaches across the United States that are filled with unwanted human waste that causes real biological damage to the ecosystem. In this project, our aim is to create a valuable tool to help beachgoers understand where local trash repositories are and aim to clean up their personal mess.
- Our stakeholders are beachgoers with an interest in conservation and this project aims to help these beachgoers find the proper means to dispose of their waste in these public venues.

DATA

- We will leverage the Foursquare API to find local trash depots, restrooms, and private waste disposal venues nearby public beaches.

```
address = '70 Newport Pier, Newport Beach, CA'  
  
geolocator = Nominatim()  
location = geolocator.geocode(address)  
latitude = location.latitude  
longitude = location.longitude
```

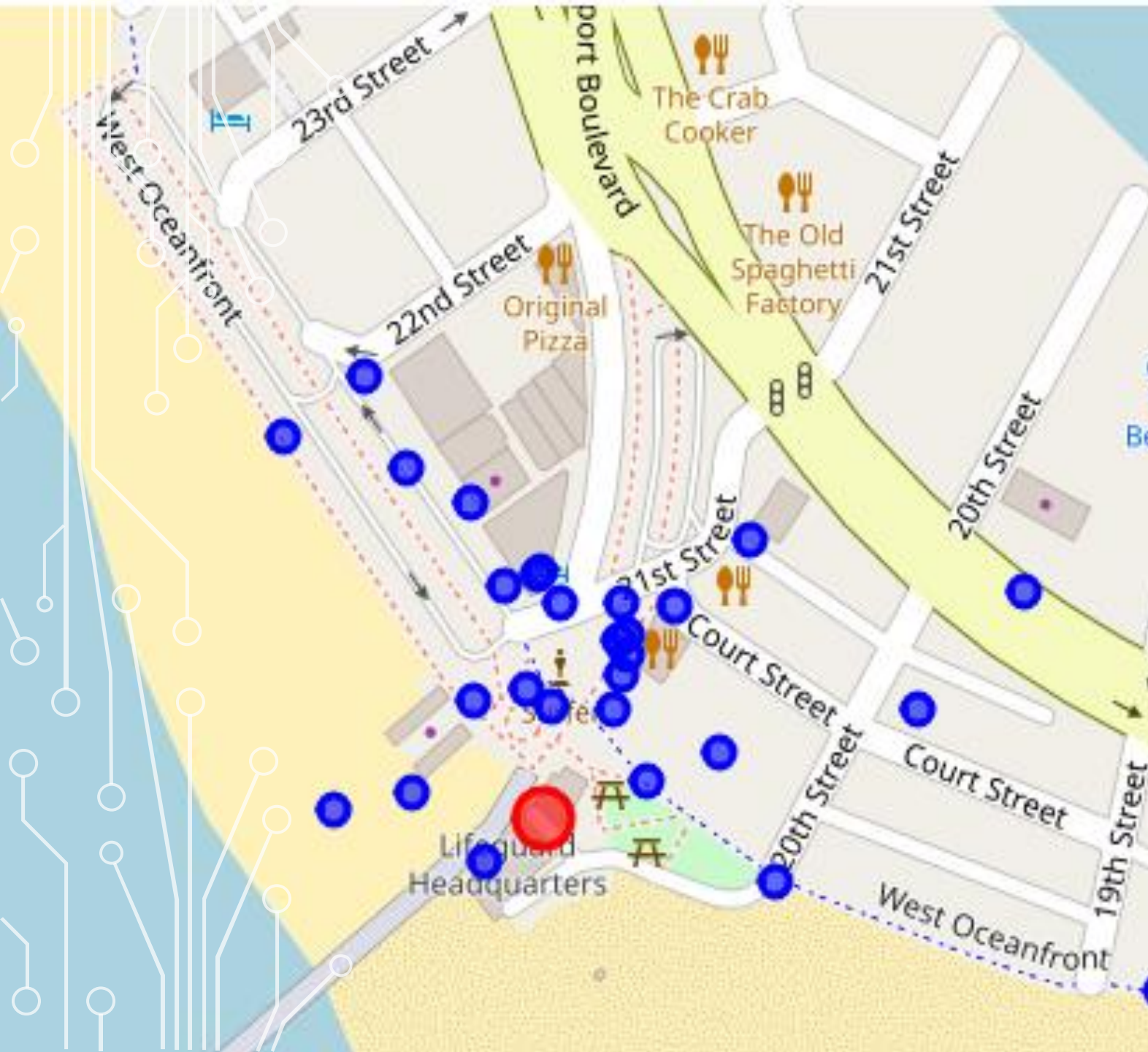
```
search_query = ''  
radius = 500
```

RESULTS

- Using the Foursquare API and Pandas Dataframes we are able to create a list of nearby venues that should have trash access.

dataframe_filtered.name

```
0          Newport Beach Boardwalk
1          21st Street Beach
2          McFadden Square
3          West Caught Fish Co.
4          Pipeline
5  Lifeguard Headquarters Newport Beach
6          Dory Fishing Fleet Market
7          Newport Beach Pier
8          Boardwalk Sports
9          Diamond Parking Lot
10         Newport Coffee Company
11         Balboa Peninsula
12         Charlie's Chili
13         Newport Pier Marketplace
14         20th Street Beach
15         Lifeguard Tower 20
16         19th Street Beach
17         Hoag Irvine
18         2004 West Oceanfront
19         My office
20         Jane's Corndogs
21         PJ's Surfrider
22         The Beach Shop
23         Newport Beach, CA
24         Seaside Donuts Bakery
25         Doryman's Inn Room 2
26         Pier Shop
27         21 Oceanfront
28         Henry's Grocery
29         The Shell Guy Of Newport
```



RESULTS

- We find that there are venues throughout the beach and nearby for the public to throw away their trash.