The Best Neighborhood for a New Miami Resident

Coursera IBM Data Science Certificate

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Miami

- Not just a dream vacation spot
- Cultural, economic and financial center of southern Florida
    - Attractive to young professionals
- 3rd richest city in the United States
- 7th in "business activity, human capital, information exchange, cultural experience, and political engagement"
- Densely populated
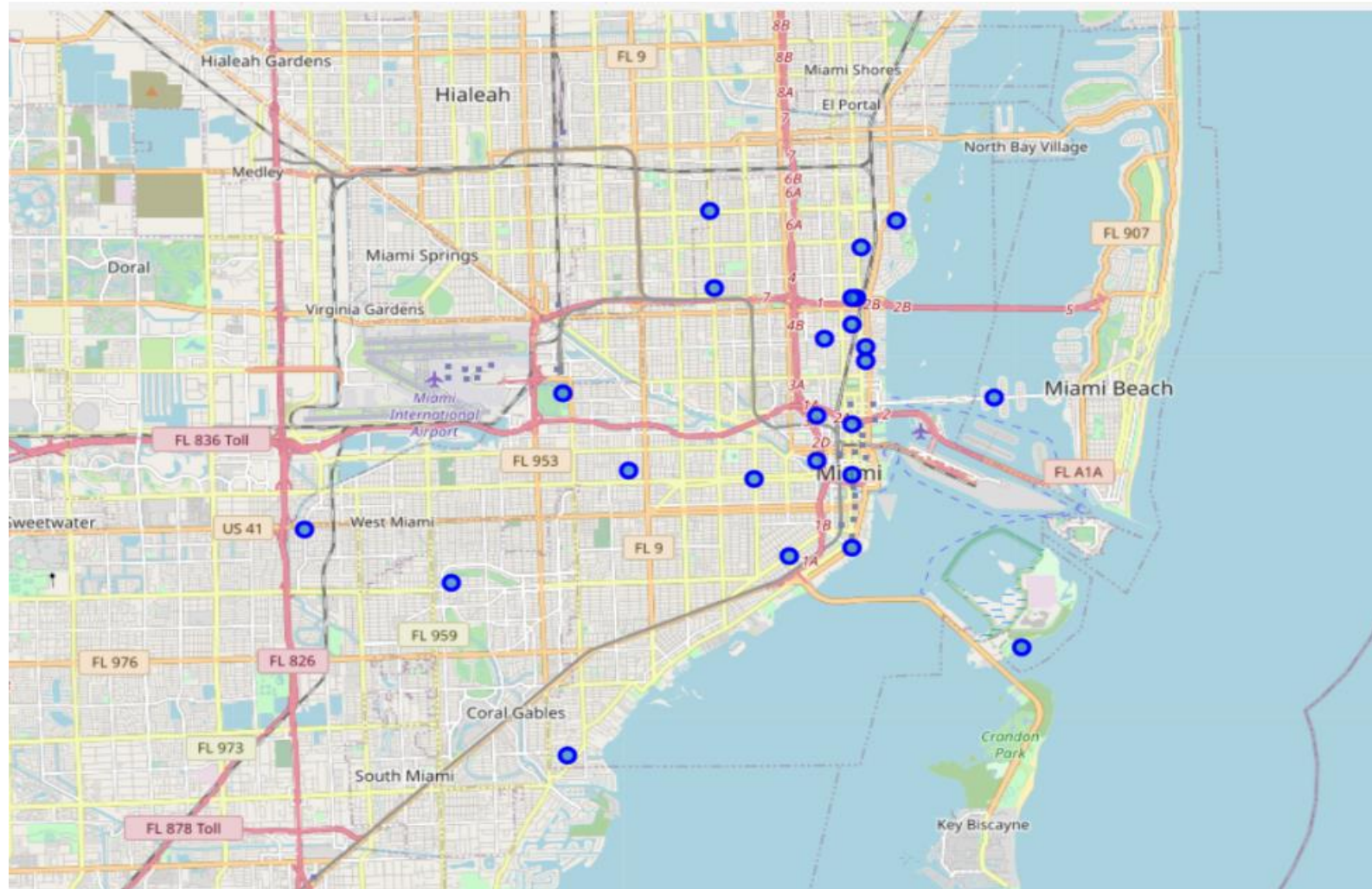   - 460,000+ in city
    - 6.1 million in Metropolitan area

Business Problem

I'm a young professional moving to Miami. Where should I live?!
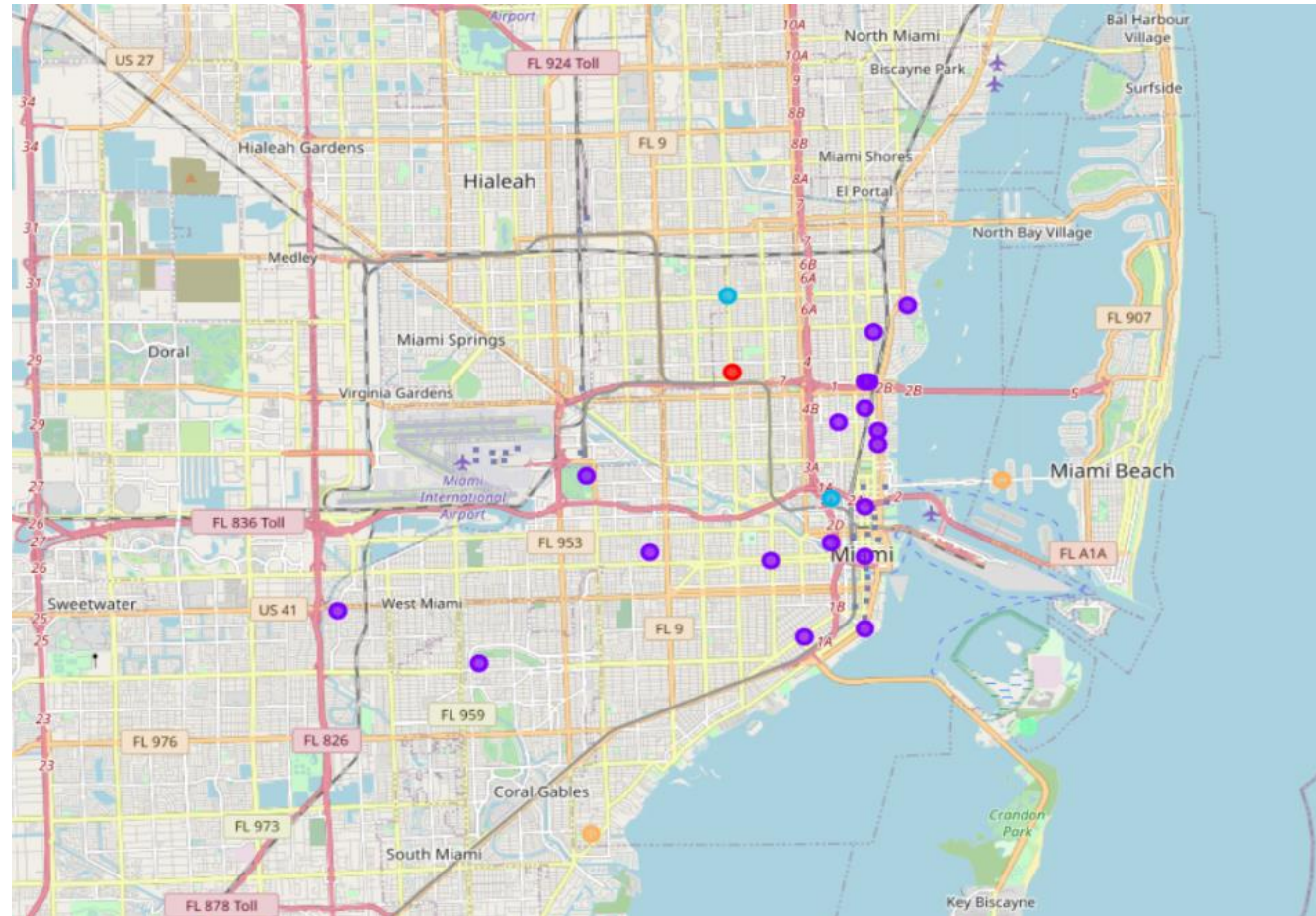
Data sourcing and extraction

▶ Data needed:

   ▶ List of major neighborhoods in Miami, FL, as currently defined by the city of Miami

   ▶ Latitude and Longitude coordinates of these neighborhoods

   ▶ Venue data for each neighborhood

▶ Data extraction:

   ▶ Wikipedia page: https://en.wikipedia.org/wiki/List_of_neighborhoods_in_Miami

      ▶ Scraped using Python and BeautifulSoup in a Jupyter notebook

   ▶ FourSquare API

      ▶ Gathered venue information, particularly venue category
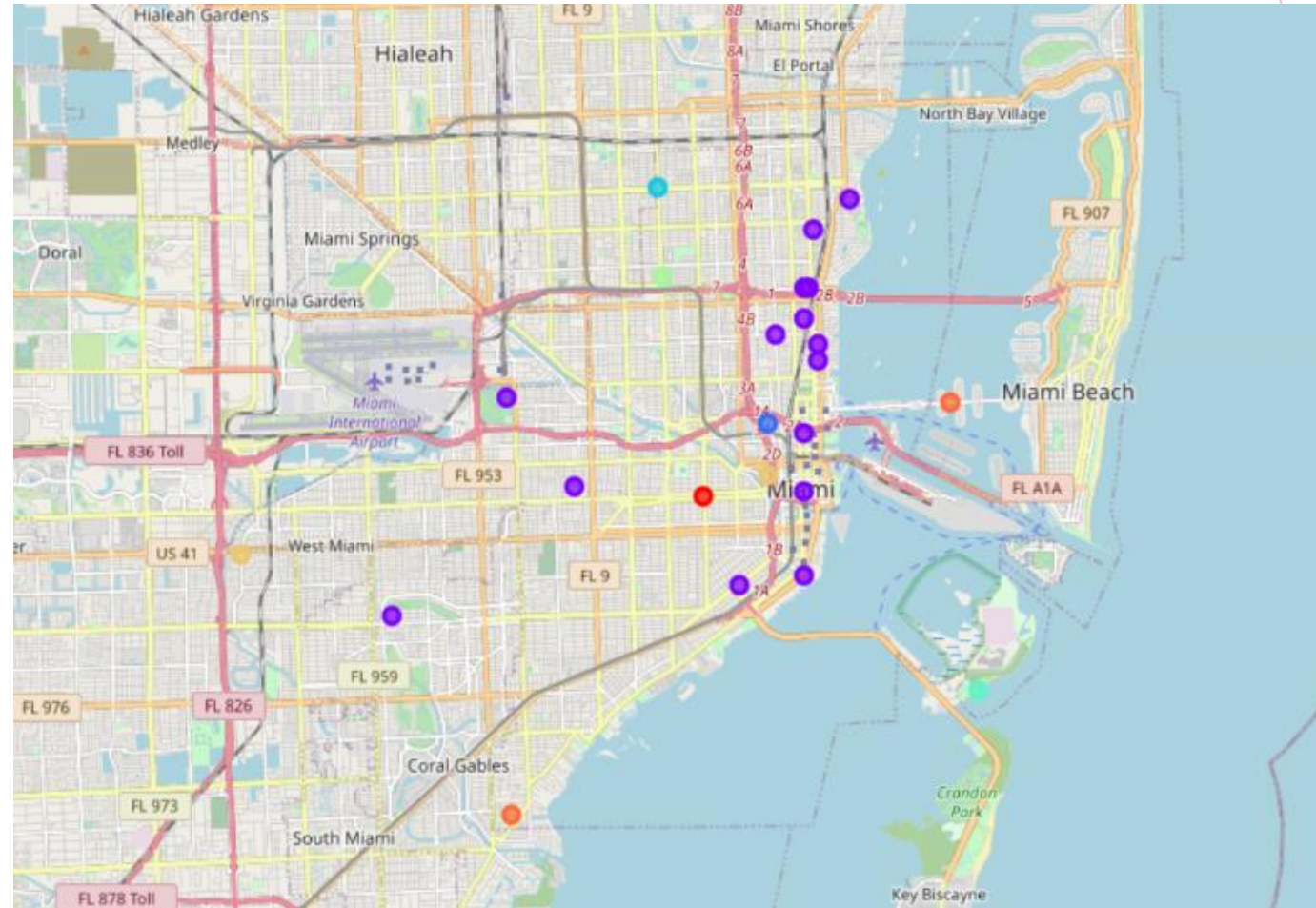
Miami's 24 Major Neighborhoods

Clustering with k=5

Notice that Cluster 2 (purple markers) vastly outnumber the others.

Clustering with k=8

Cluster 2 (purple markers) still outnumbers the others, but not as much as before.

Results

Cluster	Name	Description
1	'Latin Love'	Little Havana – Latin Restaurants
2	'Tourist Town'	City Center – Hotels, Coffee and Jewelry Stores
3 & 4	'Southern Comfort'	Overtown & Liberty City – Soul Food and Wings Restaurants
5	'Fun in the Sun'	Virginia Key – Beaches
6	'Family First'	Allapattah – Convenience and Department Stores (map shows Elementary and Middle Schools)
7	'Happy as a Clam'	Flagami & Lummus Park – Seafood Restaurants
8	'Come Sail Away'	Coconut Grove & Venetian Islands – Boat/Ferry and Parks

Discussion and Conclusion

- Problem with a lack of data available in FourSquare
  - Too few venue results makes it difficult to cluster appropriate
- Miami is very diverse
  - Very little concentration of a particular type of venue in any neighborhood
- Future analysis can dive deeper into just the city center area