

An aerial photograph of a tropical coastal landscape. In the background, a range of dark, rugged mountains rises against a bright blue sky with scattered white clouds. The middle ground shows a lush, green valley with winding roads and small settlements. A large, sandy beach curves along the coastline, meeting the vibrant turquoise waters of the ocean. The foreground features a mix of green fields, a winding river, and a sandy beach area.

Visit Hawaii
Capstone Travel

Which Hawaiian Island to Visit?

- Explore six major Hawaiian islands:
 - Kauai
 - Oahu
 - Molokai
 - Lanai
 - Maui
 - Big Island
- Aggregate useful information on housing, crime data, weather, top-pick venues, etc.
- Targeting customers who wants to spend at least 2 weeks in Hawaii

Data Acquisition and Cleaning

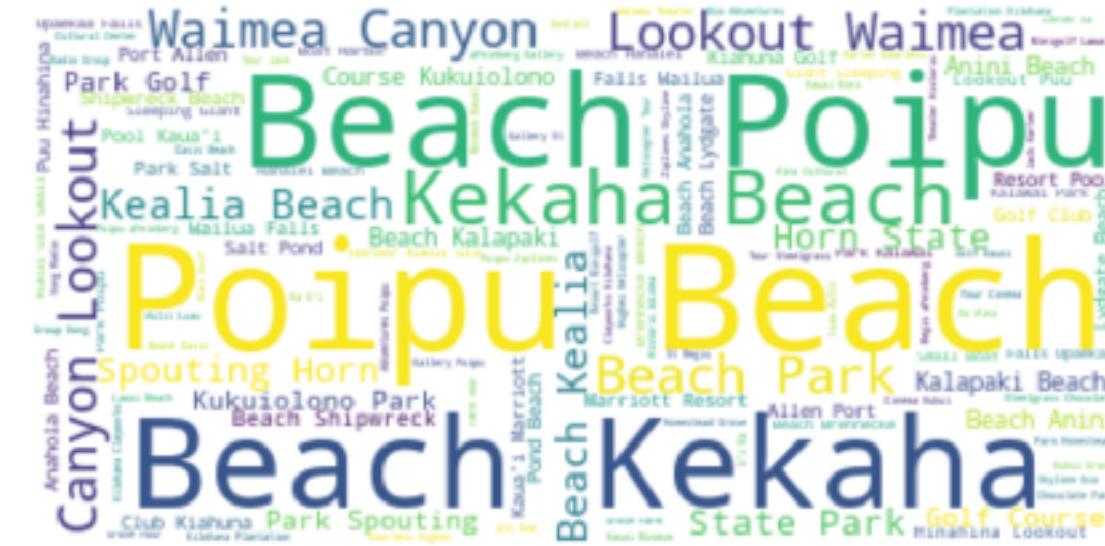
- Create a custom island dataset using Wikipedia and State of Hawaii.
- Scrap zip code information from ZipcodeToGo website.
- Use Foursquare Place API to explore the top-pick venues on the areas like:
 - Parks & beaches
 - Art and museums
 - Restaurants
 - Nightlife and bars
- Also use AreaVibes website to scrap information on crimes, weather.
- Download open source data on Airbnb posting from InsideAirbnb.
- Briefly visit the Department of Health in Hawaii to study the COVID-19 cases and threads.

Island Dataset	Data Point Description
island	Name of the Hawaiian Islands.
nickname	Each island has its own nick name, it may be helpful to learn this as a tourist.
county	Name of county associated to the island.
capital _city	Capital city of the county.
population	Island population.
density	Density of population.
area	Area size of an island.
latitude	Island latitude.
longitude	Island longitude.

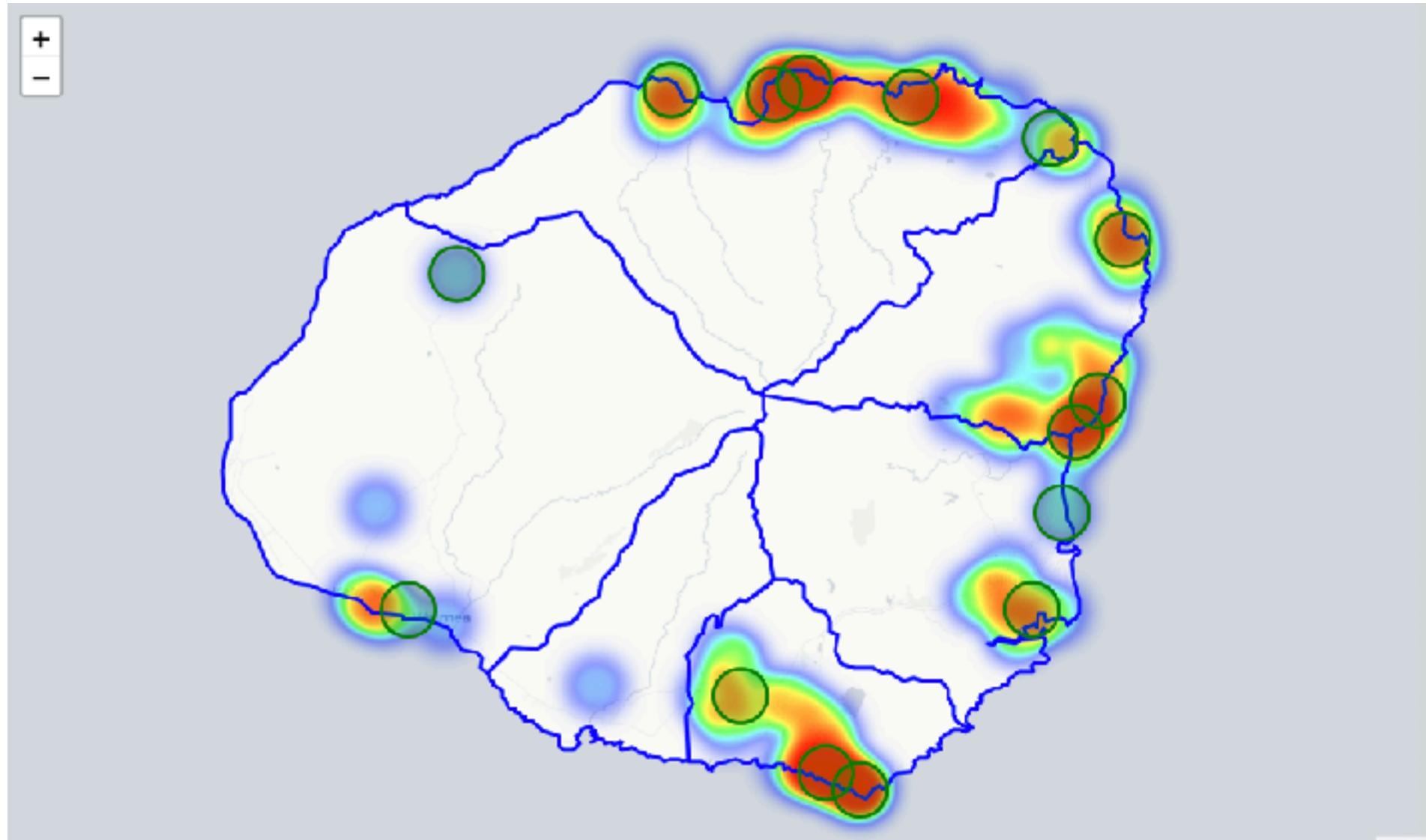


Kauai The "Garden Island"

Top-Picks for Kauai



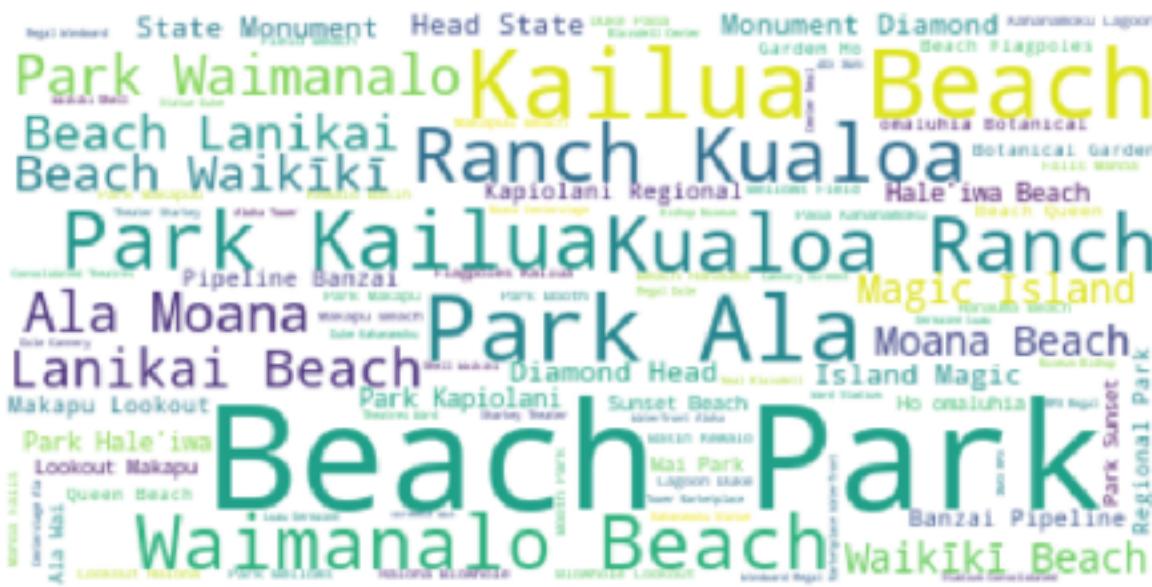
Airbnb - Posting Clusters on Kauai



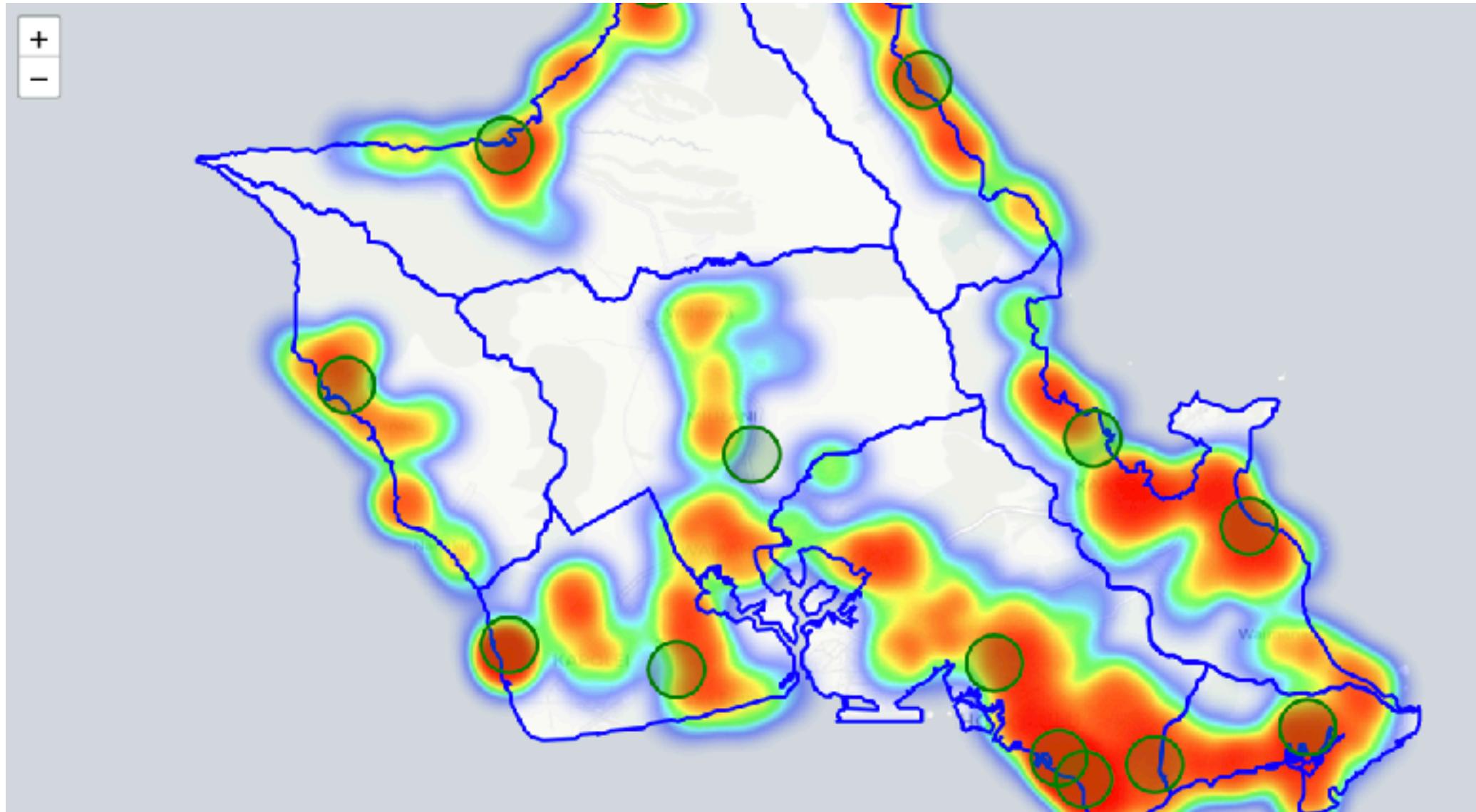
An aerial photograph of the Waikiki area in Honolulu, Oahu. In the background, the iconic Diamond Head Crater rises prominently against a clear blue sky. The foreground is filled with a dense cluster of tall, modern skyscrapers and high-rise apartment buildings. A bright blue ocean stretches to the horizon. The text "Oahu The Heart of Hawaii" is overlaid on the left side of the image.

Oahu The Heart of Hawaii

Top-Picks for Oahu



Airbnb - Posting Clusters on Oahu

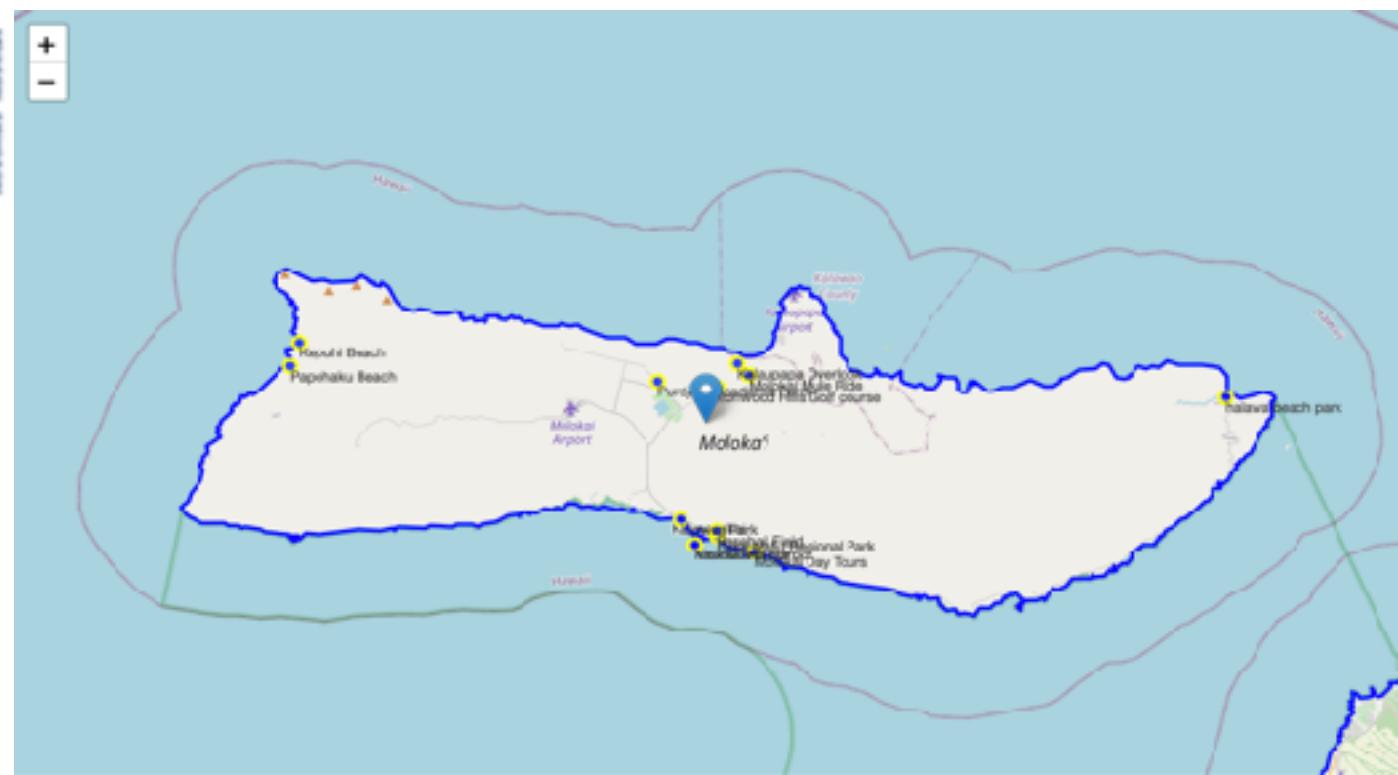




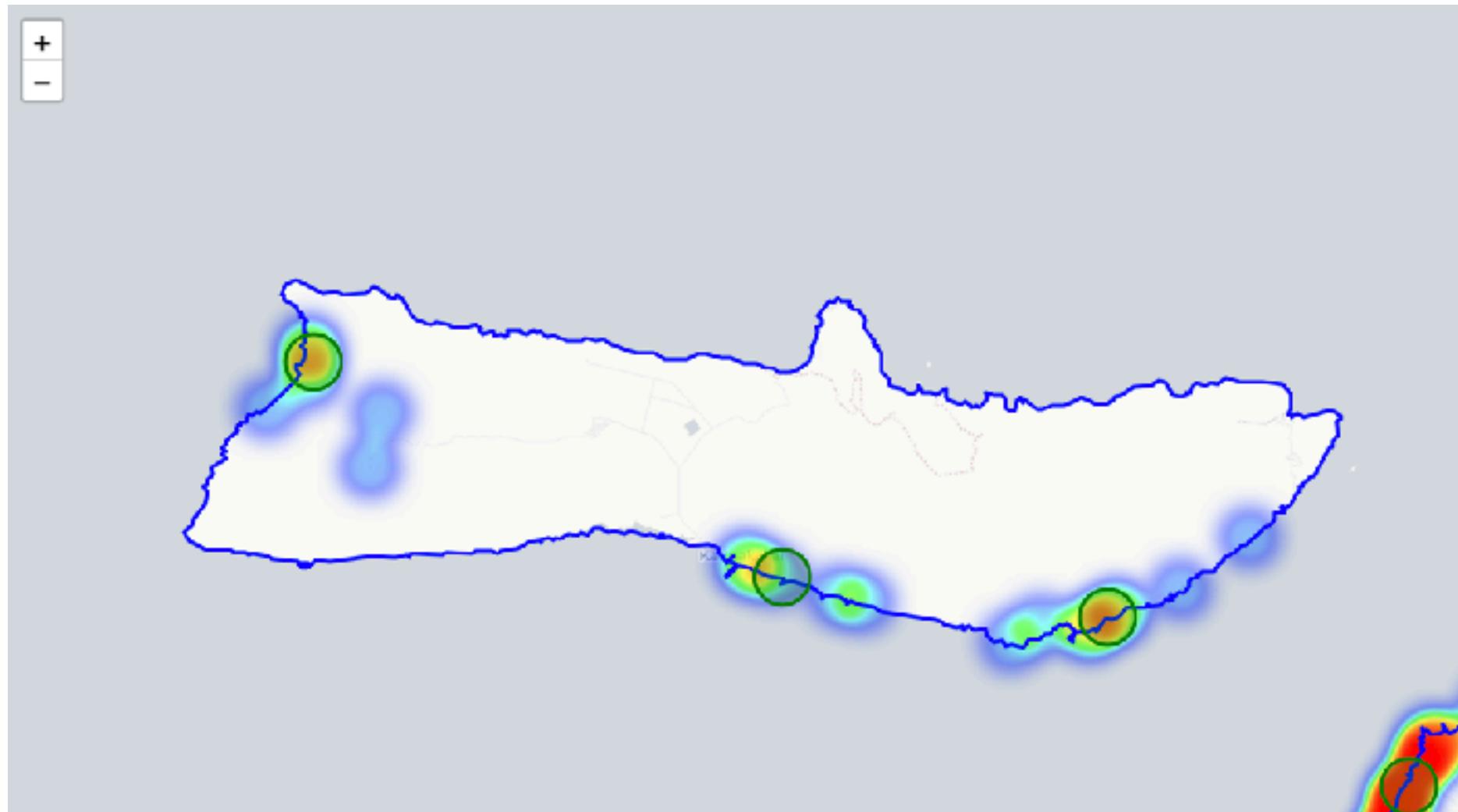
Molokai Hawaiian by
Nature

Top-Picks for Molokai

Harbor Kaunakakai
Kalaupapa Overlook Park Kiowa Park Duke Day Tours Hike Halawa Valley Falls Heart Molokai
Macadamia Farm Kiowa Park Hike Halawa Valley Falls
Duke Malibu Molokai Day Kepuhi Beach
Beach Papohaku Papohaku Beach Regional Park Mule Ride
halawa beach Halawa Valley Overlook Kalaupapa Beach Kepuhi Cultural Hike
Purdy Macadamia Molokai Mule Ride
Harbor Molokai Ride Molokai Tours Molokai Art Heart park halawa Molokai Mule Ride
Golf course Field Baseball Falls Cultural Ironwood Hills course Ironwood
Kaunakakai Harbor



Airbnb - Posting Clusters on Molokai



A scenic view of a tropical coastline. In the foreground, a large, gnarled tree branch hangs over the clear blue ocean. The background features lush green hills and a small coastal town with several houses. The sky is a clear, pale blue.

Lanai Hawaii's Most Enticing Island

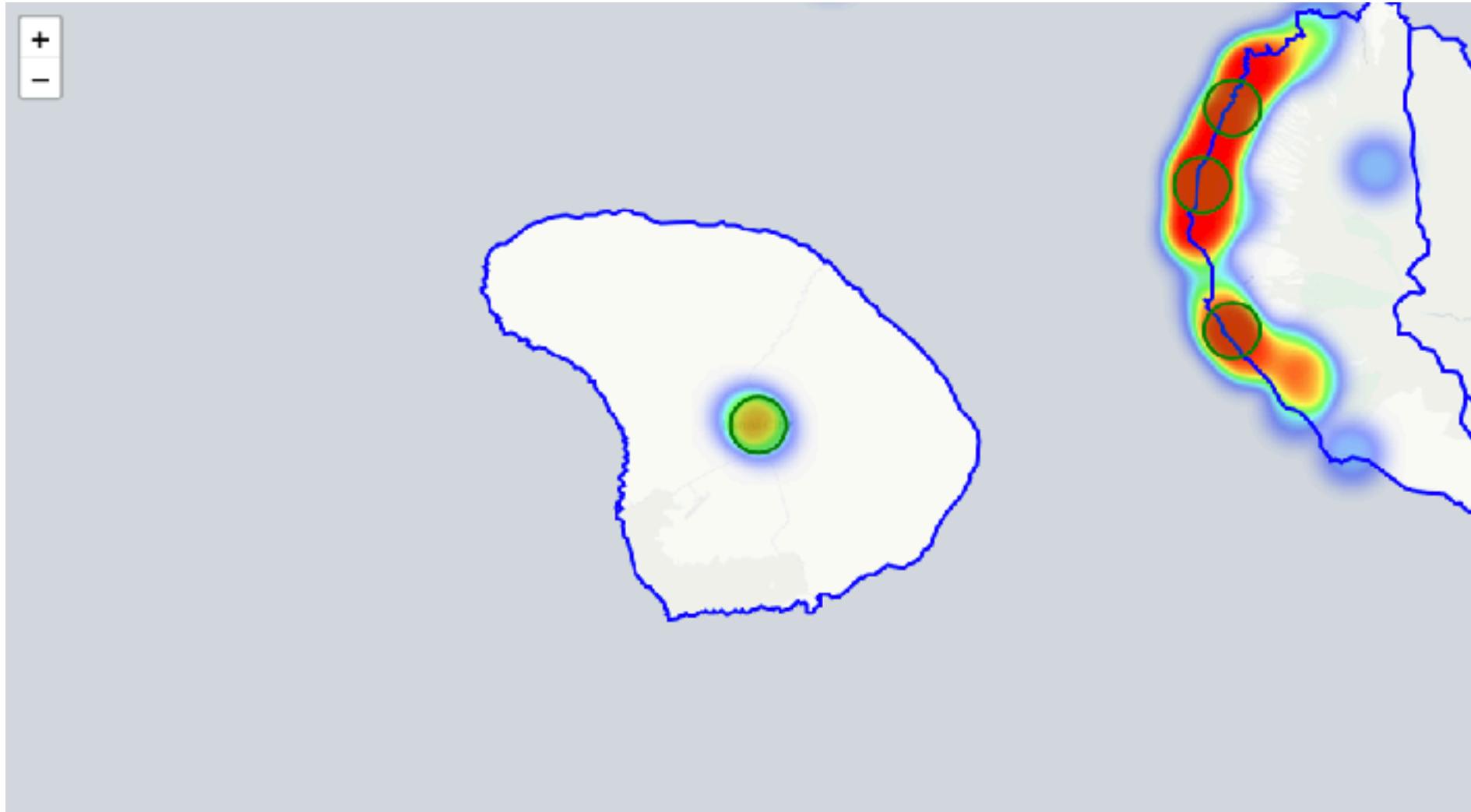
Top-Picks for Lanai

The word cloud includes the following text elements:

- Hulopo'e Beach
- Course Challenge
- Experience Koele
- Seasons Resort
- Lana'i Surf
- Pine Sporting
- Dole Park
- Sporting Clays
- Clays Dole
- Koele Executive
- Beach Polihua
- Manele Golf
- Lodge Koele
- Lanai Cat
- Bay Pool
- Manele Harbor
- Harbor Koele
- Experience Koele
- Manele Beach
- Hulopo'e Beach
- Pu'upehe Islet
- Cathedral First
- Lanai Lanai
- Four Seasons
- Golf Course
- Challenge Manele
- Rock Pu'upehe
- Manele Bay
- Manele Harbor
- Manele First
- Cathedral First
- Islet Sweetheart
- Putting Course
- Seasons Manele
- Challenge Lodge
- Park Dole
- Cat Sanctuary
- Sweetheart Rock
- Hole Putting
- Polihua Beach
- Luau Grounds
- Manele Pine
- W.P.F. School
- Koele Executive
- Beach Polihua
- Manele Golf
- Lanai Cat
- Manele Harbor
- Manele Beach
- Hulopo'e Beach
- Pu'upehe Islet
- Cathedral First
- Islet Sweetheart
- Putting Course
- Seasons Manele
- Challenge Lodge
- Park Dole
- Cat Sanctuary
- Sweetheart Rock



Airbnb - Posting Clusters on Lanai

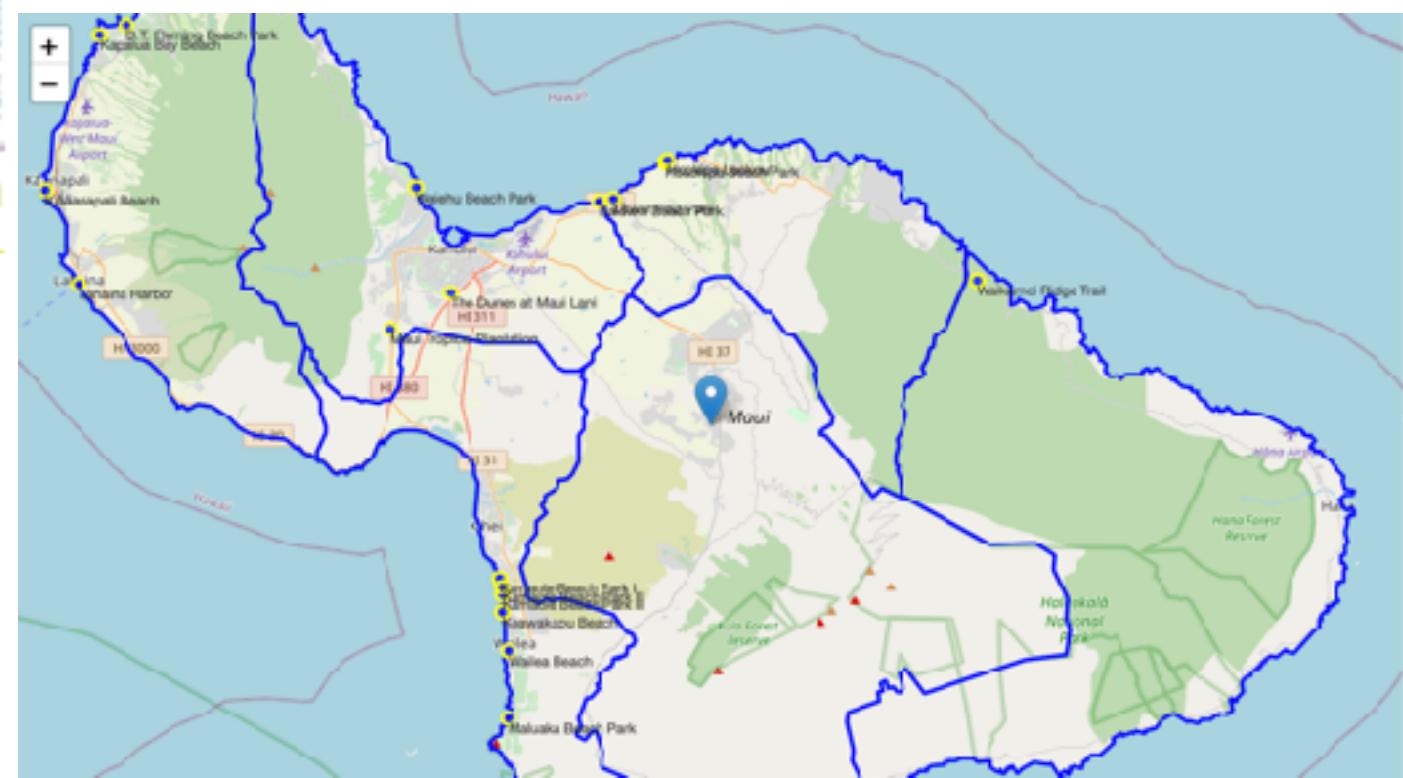


A photograph of a person standing on a mountain peak, looking out over a vast sea of clouds at sunset. The sky is a warm orange and yellow. In the foreground, the silhouette of another person's head and shoulders is visible on the left.

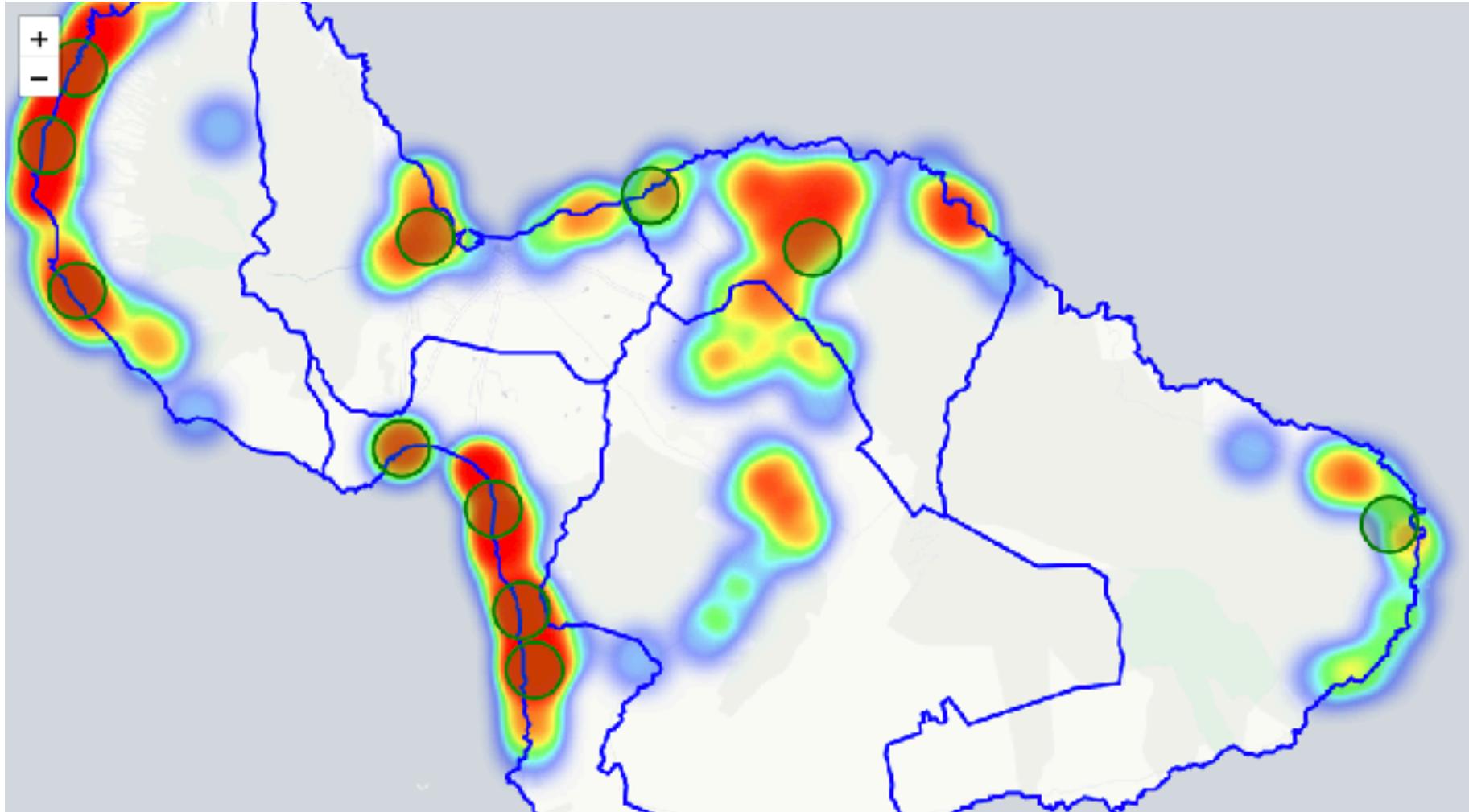
Maui

The Valley Isle

Top-Picks for Maui



Airbnb - Posting Clusters on Maui

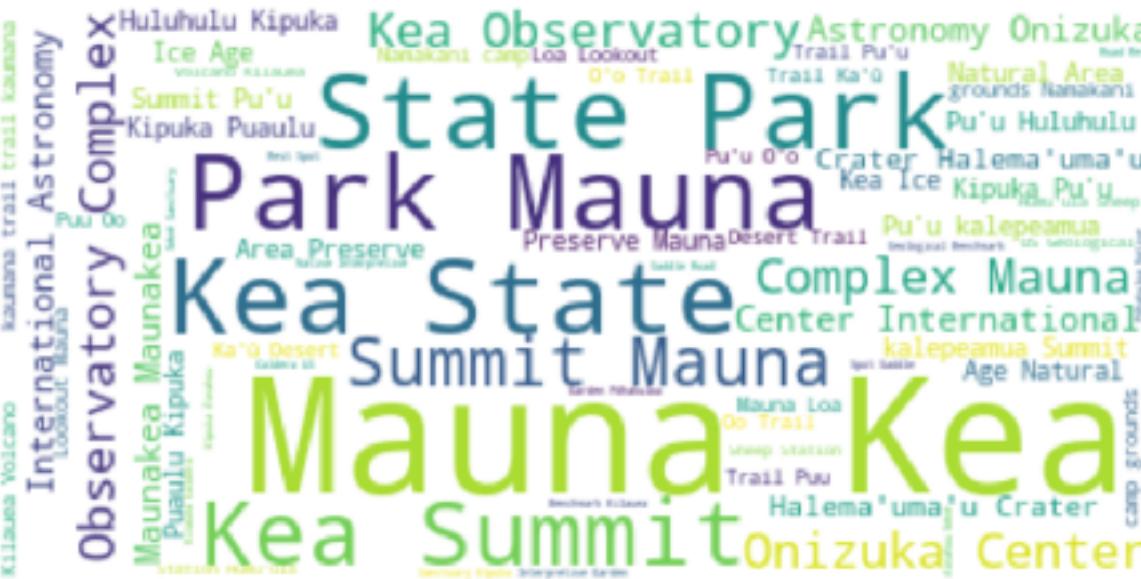


A wide-angle photograph of a coastal landscape at sunset. The sky is a warm orange and yellow, transitioning to a darker blue at the horizon. In the foreground, the dark blue ocean meets the shore. On the right side, there are large, dark, rugged cliffs with vertical streaks of light from the setting sun. In the background, more hills and mountains are visible under the same warm sunset light.

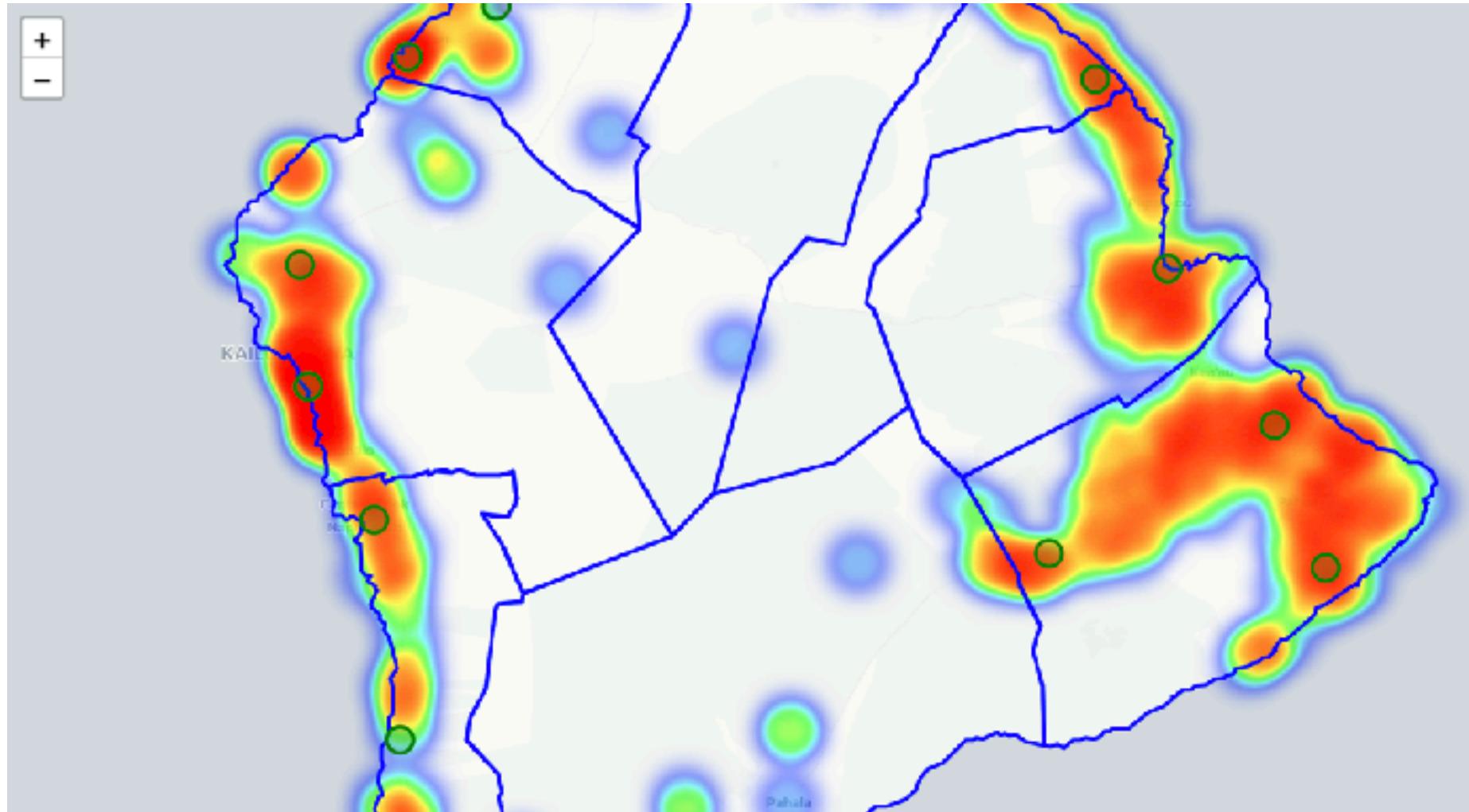
Island of **Hawaii**

Island of
Inspiration

Top-Picks for Big Island



Airbnb - Posting Clusters on Big Island



Discussion & Conclusion

Attributes	Kauai	Oahu	Molokai	Lanai	Maui	Island of Hawaii
Nickname	Garden Isle	Gathering Place	Friendly Isle	Pineapple Isle	Valley Isle	Big Island
Capital City	Lihue	Honolulu	Wailuku	Wailuku	Wailuku	Hilo
Area (sq mi)	4,552.3	11,597.5	528.3	622.3	2,196.6	14,028.0
Criminal Charge (in 2020)	0	75,297	0	0	0	0
Avg Spring Temp	72°F	74°F	71°F	68°F	72°F	71°F
Avg Summer Temp	78°F	77°F	74°F	71°F	76°F	74°F
Avg Fall Temp	79°F	80°F	78°F	74°F	79°F	76°F
Avg Winter Temp	76°F	77°F	75°F	71°F	75°F	73°F
Population	66,921	953,207	7,345	3,135	144,444	185,079
Density (pop. / sq mi)	3,121	11,597	528	622	2,727	445

- Crime incident is low for most of the islands except Oahu.
- Airbnb is a good way to shop for a place to stay.
- Information presented in this project should help customers to make up their mind on which Hawaiian island they want to spend in.
- COVID-19 is under control in Hawaii.