San Diego Airbnb

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Motivation

Airbnb

Mainstream Platform
for Travelers

Data Analytics

Optimize Business
Decisions

Investment

Ideal Match for
Popular Demand

Key Metrics for Airbnbs

Price

Budget | Median | Luxury

Location

Coastal | Downtown | Suburbs

Room Type

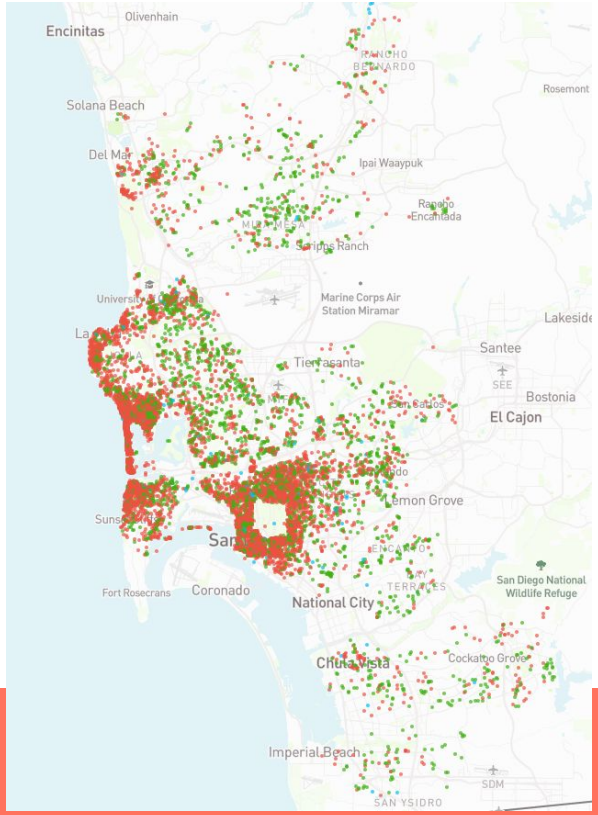
Entire Home | Shared Room
Private Room | Hotel

Availability

Annual | Minimum Nights

Inside Airbnb Dataset

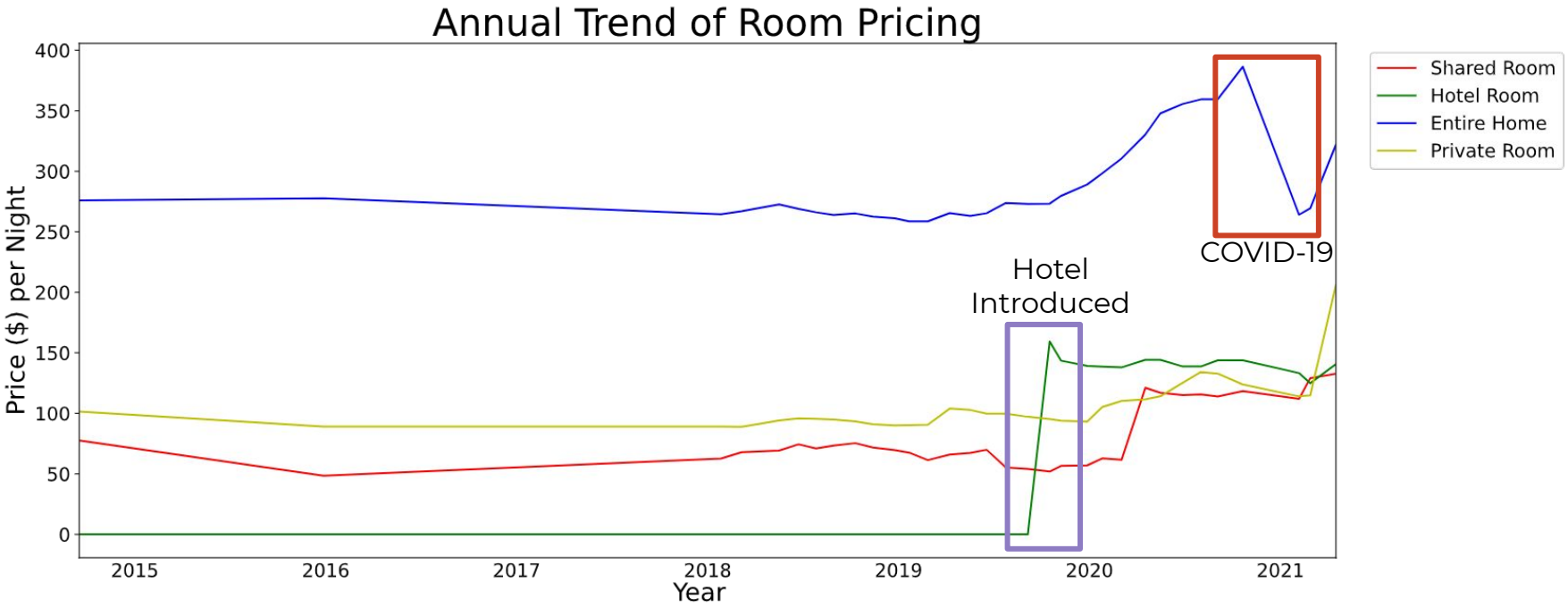
Strengths	Limitations
1. Monthly data from 2018 to present 2. Quantitative data for key metrics 3. Geographical locations	1. Annual data prior to 2017 2. Extreme outliers in data

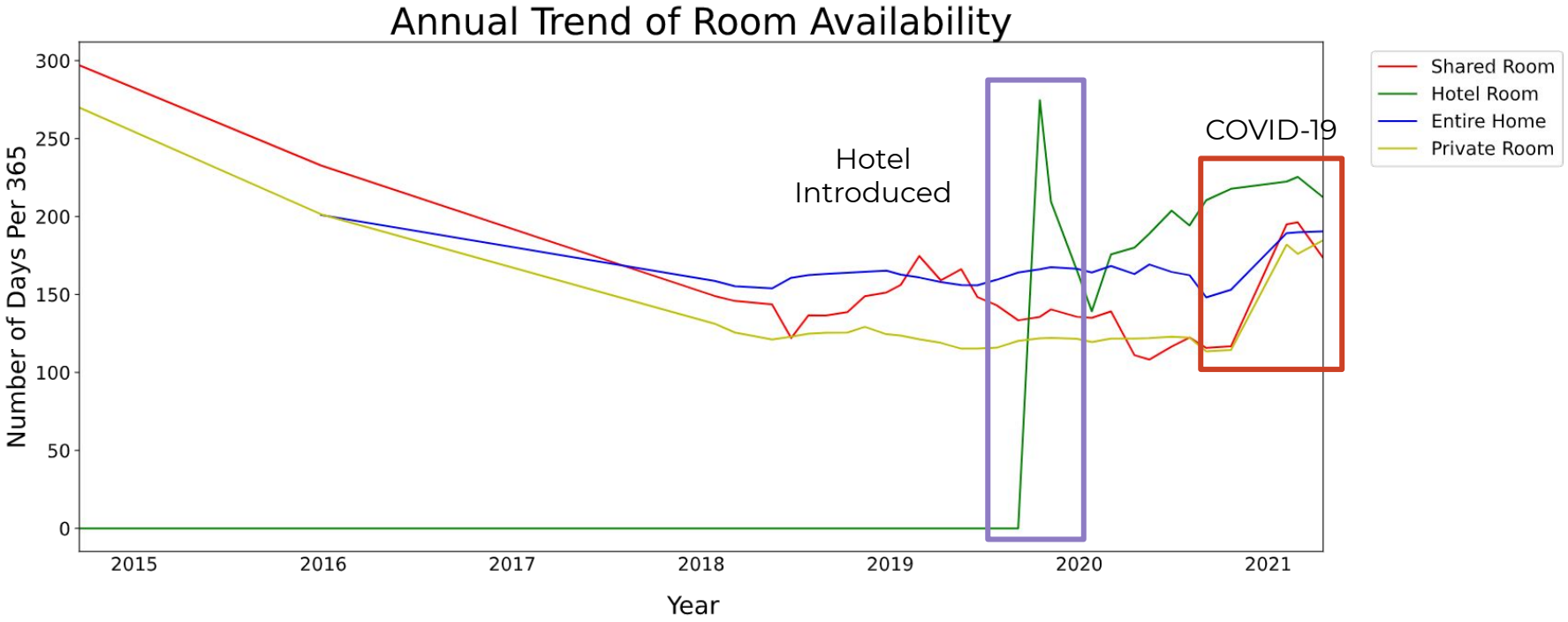


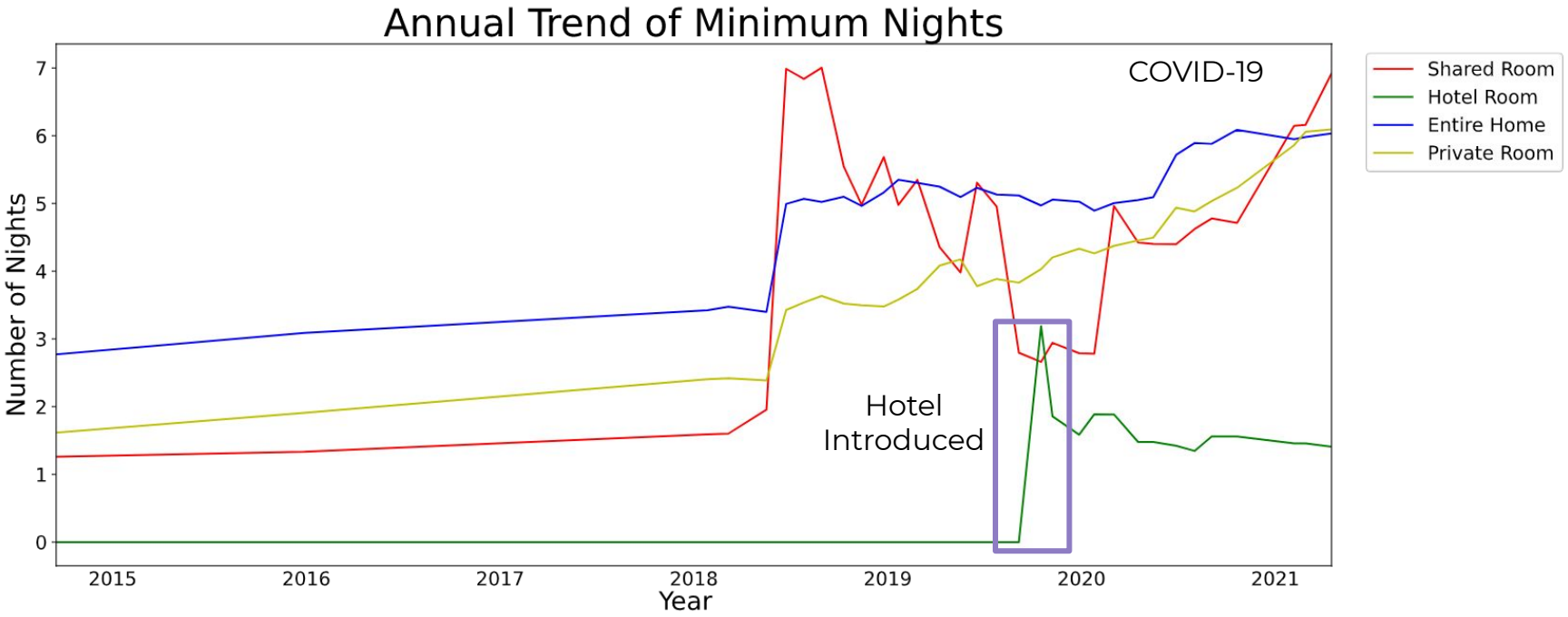
Data Extraction

- Removed extraneous data - host names and IDs, URLs, etc
- Filtered Quantitative Data
- Split data by month & year

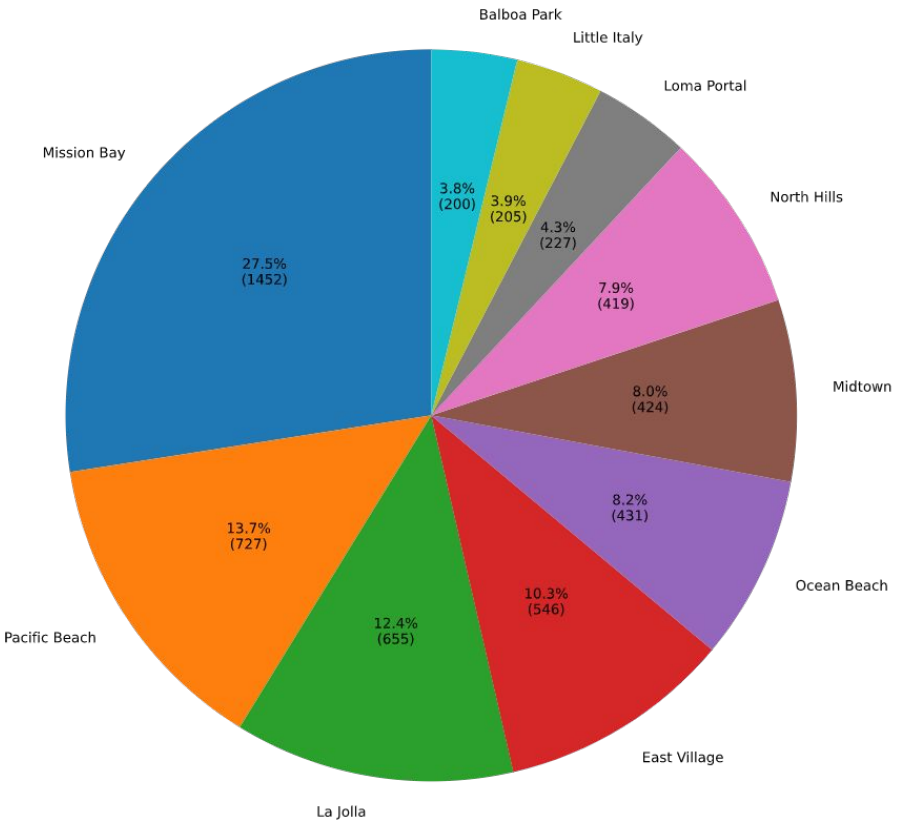
	NEIGHBOURHOOD	LATITUDE	LONGITUDE	ROOM_TYPE	PRICE	MINIMUM_NIGHTS	NUMBER_OF_REVIEWS	CALCULATED_HOST_LISTINGS_COUNT	AVAILABILITY_365
0	Mission Bay	32.78430	-117.25258	Entire home/apt	2050	3	0	3	207
1	Pacific Beach	32.80724	-117.25630	Entire home/apt	261	4	62	5	213
2	Roseville	32.74202	-117.21870	Private room	74	1	143	3	359
3	La Jolla	32.81301	-117.26856	Entire home/apt	110	3	244	2	99
4	Pacific Beach	32.80734	-117.24243	Entire home/apt	74	1	620	2	320
...	...	...	...	...	...	...	...	...	...
9243	Carmel Valley	32.91599	-117.22823	Private room	1639	1	0	114	363
9244	La Jolla	32.81478	-117.26819	Entire home/apt	330	3	0	163	329
9245	Loma Portal	32.74936	-117.24163	Entire home/apt	85	3	0	163	342
9246	Mission Bay	32.78300	-117.25392	Entire home/apt	112	3	0	163	353
9247	La Jolla	32.81315	-117.27116	Entire home/apt	545	3	0	163	252

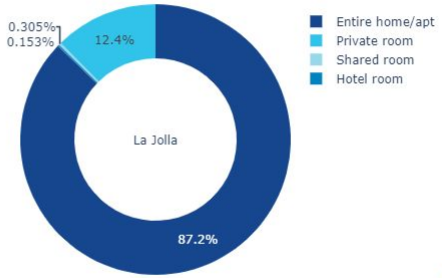

Annual Trend of Room Pricing
Price ($) per Night
400
350
300
250
200
150
100
50
0
2015
2016
2017
2018
2019
2020
2021
Year
Shared Room
Hotel Room
Entire Home
Private Room
COVID-19
Hotel
Introduced

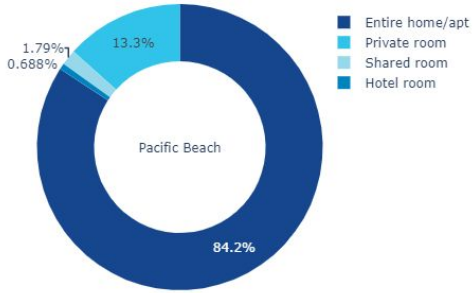

Annual Trend of Room Availability
Number of Days Per 365
300
250
200
150
100
50
0
2015
2016
2017
2018
2019
2020
2021
Year
Hotel
Introduced
COVID-19
Shared Room
Hotel Room
Entire Home
Private Room

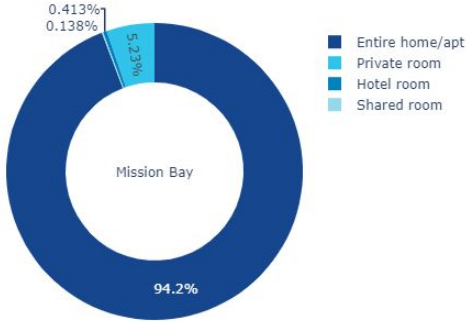

Annual Trend of Minimum Nights
COVID-19
Hotel
Introduced
Shared Room
Hotel Room
Entire Home
Private Room
Number of Nights
Year
0
1
2
3
4
5
6
7
2015
2016
2017
2018
2019
2020
2021

Neighborhood Occupancy in San Diego



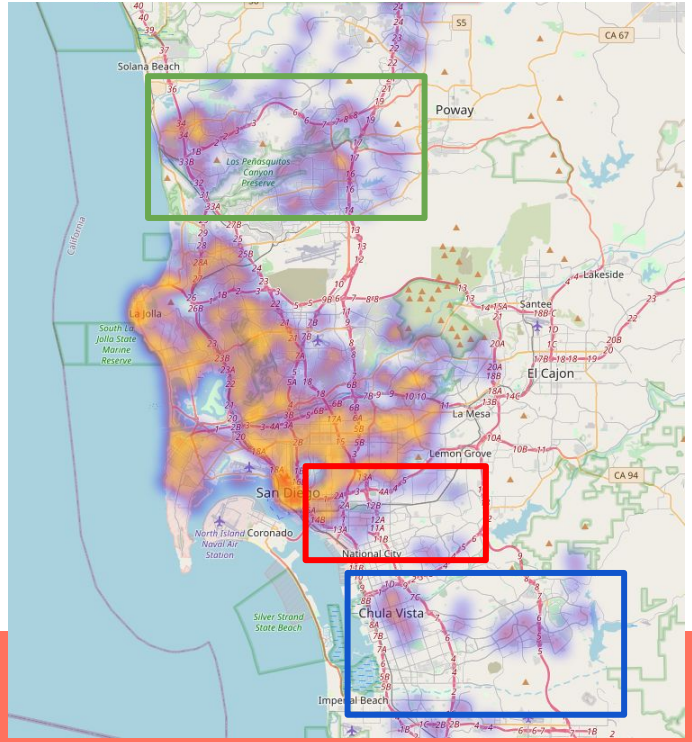




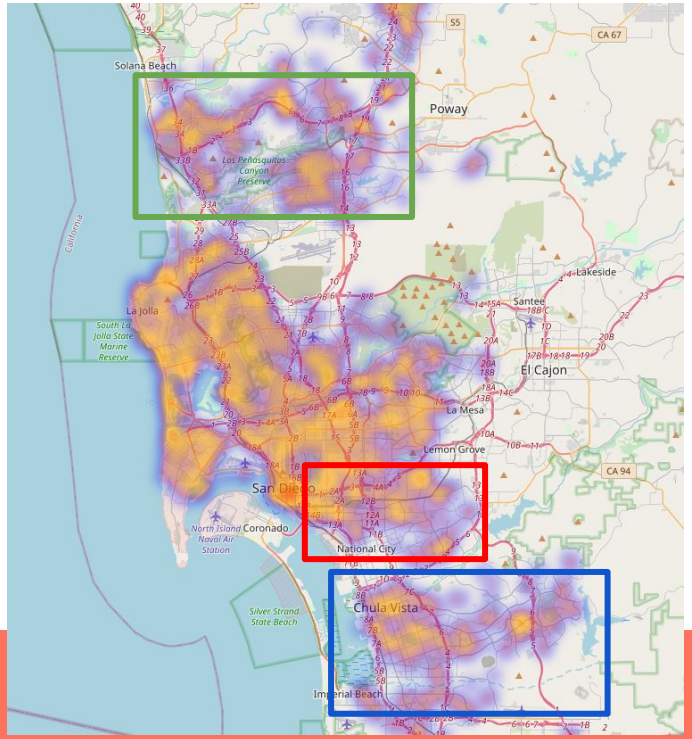


Density of Airbnb Listings San Diego

2015

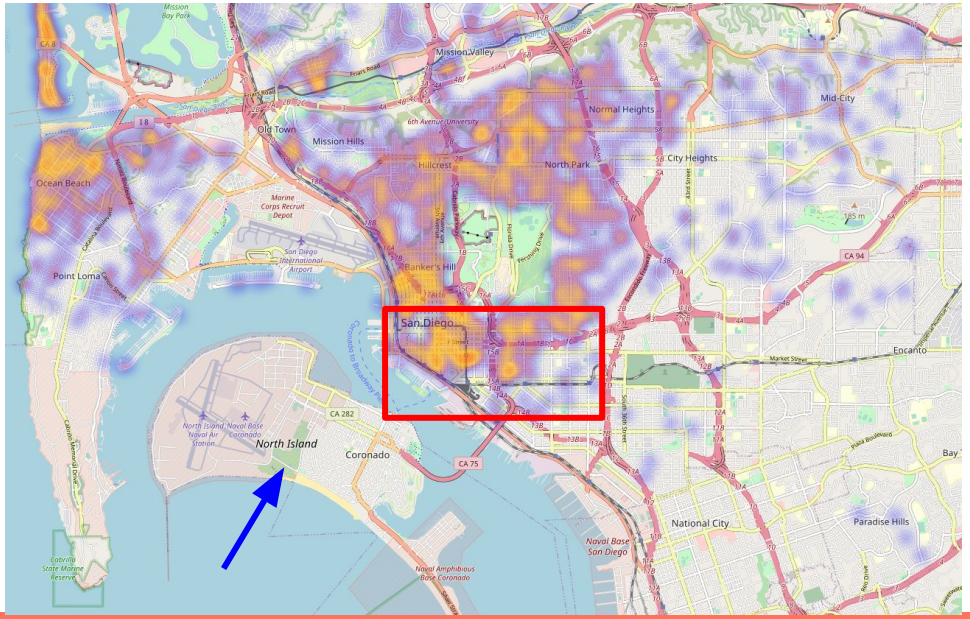


2020

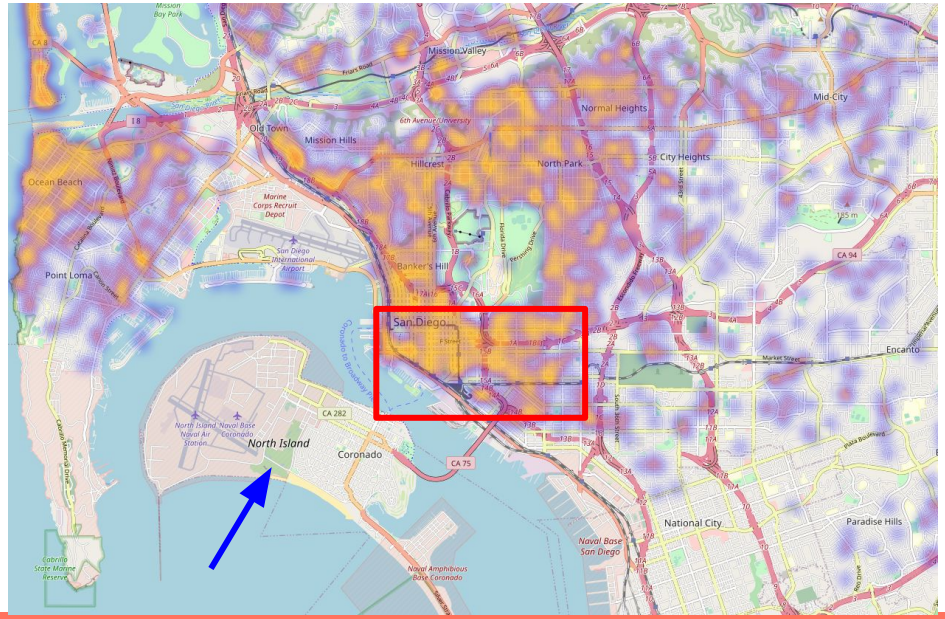


Density of Airbnb Listings Downtown

2015

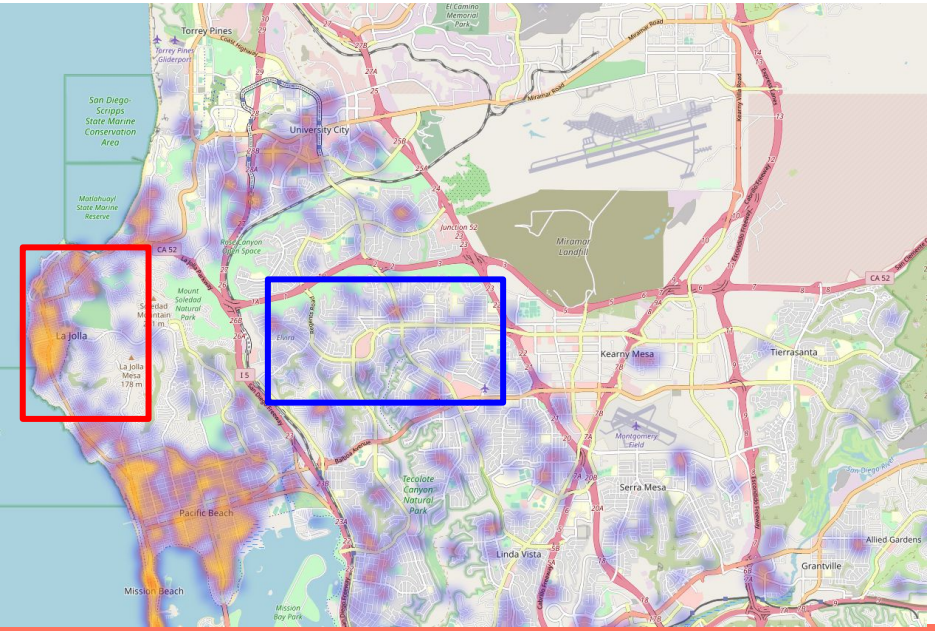


2020

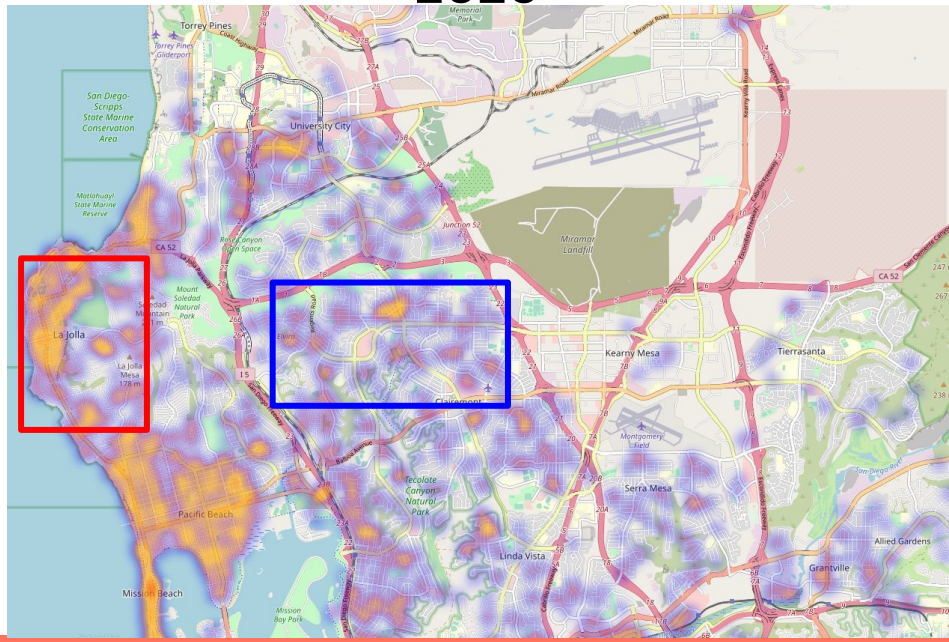


Density of Airbnb Listings Coastal

2015

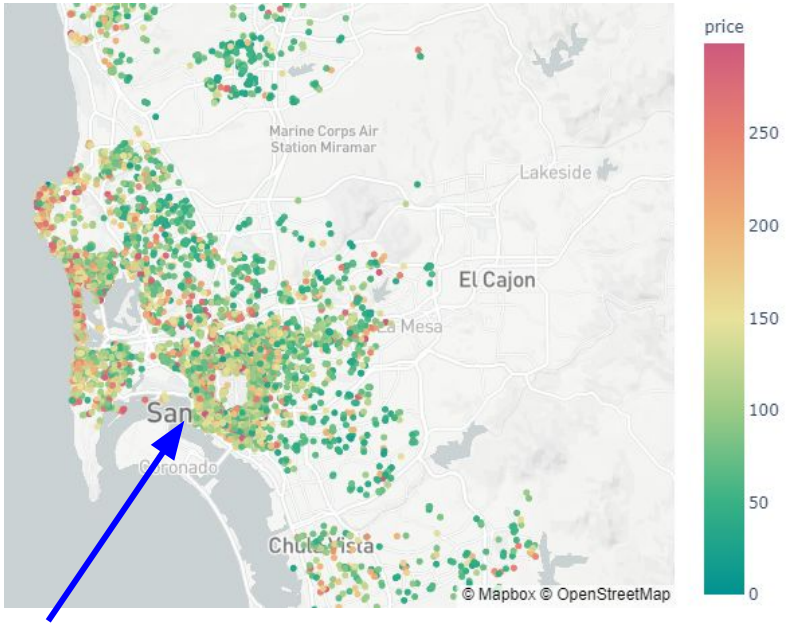


2020

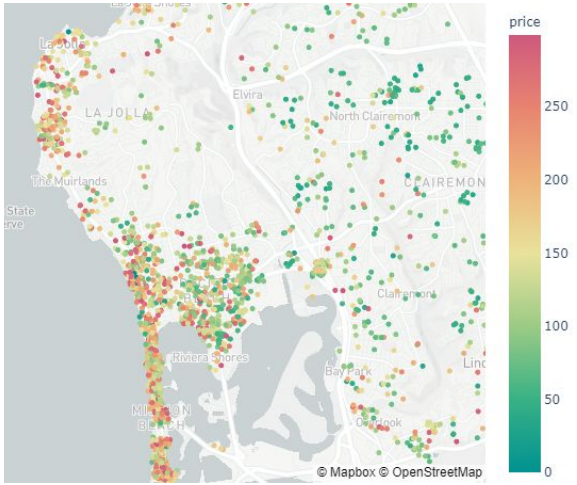


Price Map of Listings < $300

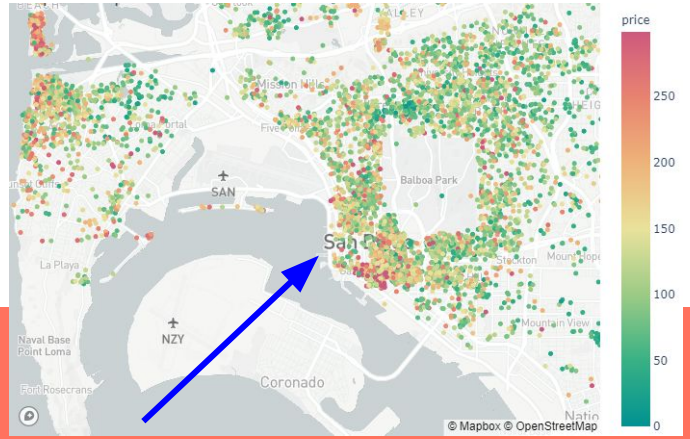
San Diego County



Coastal

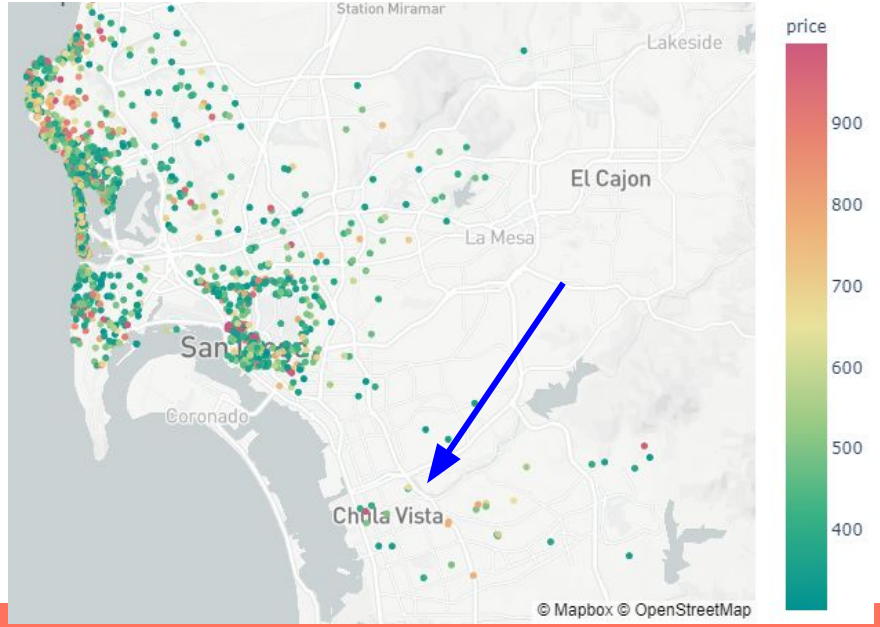


Downtown

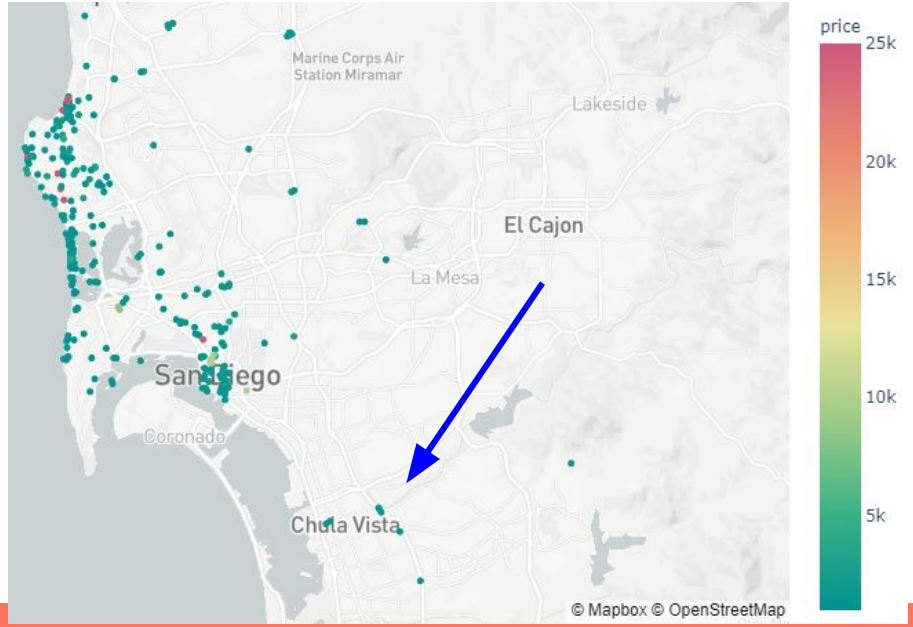


Price Map of Listings

$300 < Price < $1000

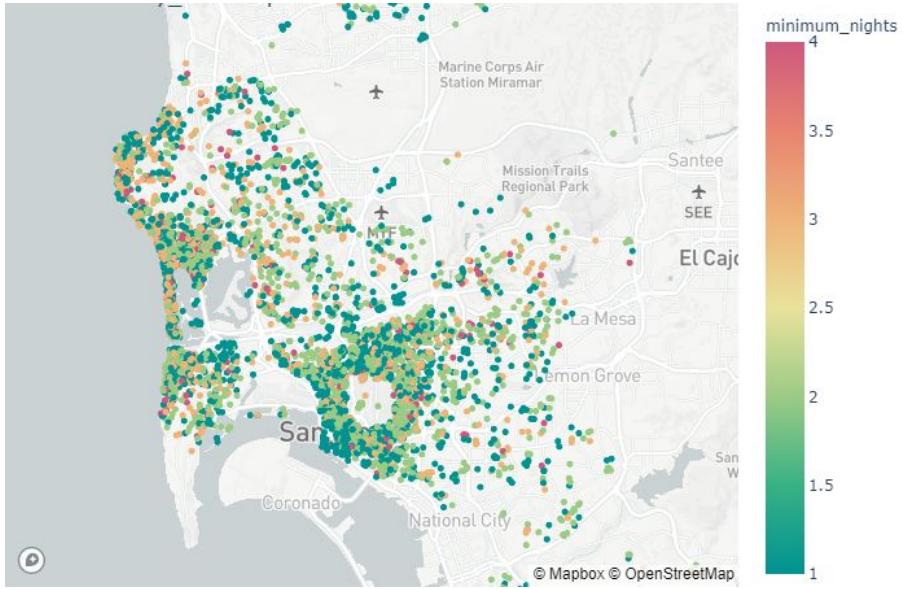


Price > $1000

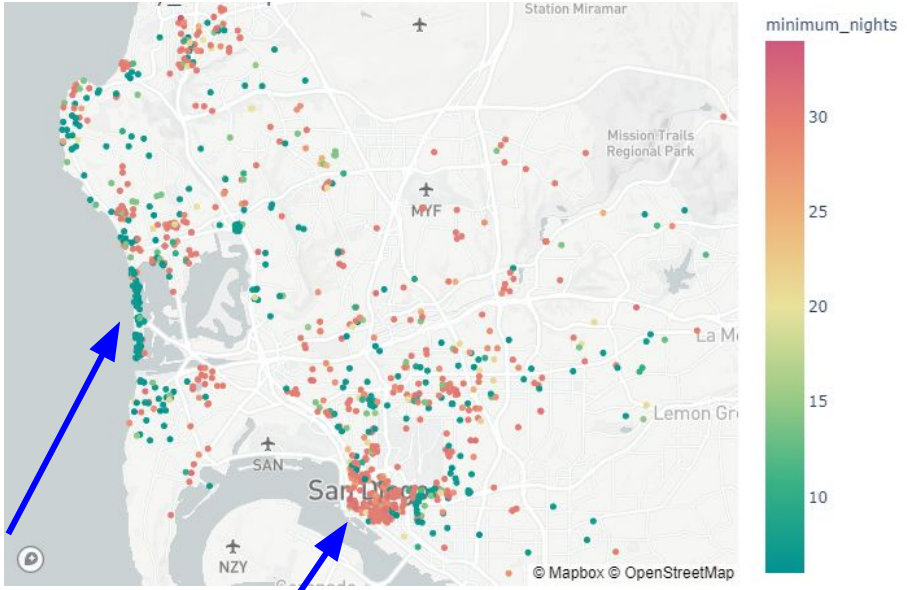


Minimum Nights Map

< 5 Days

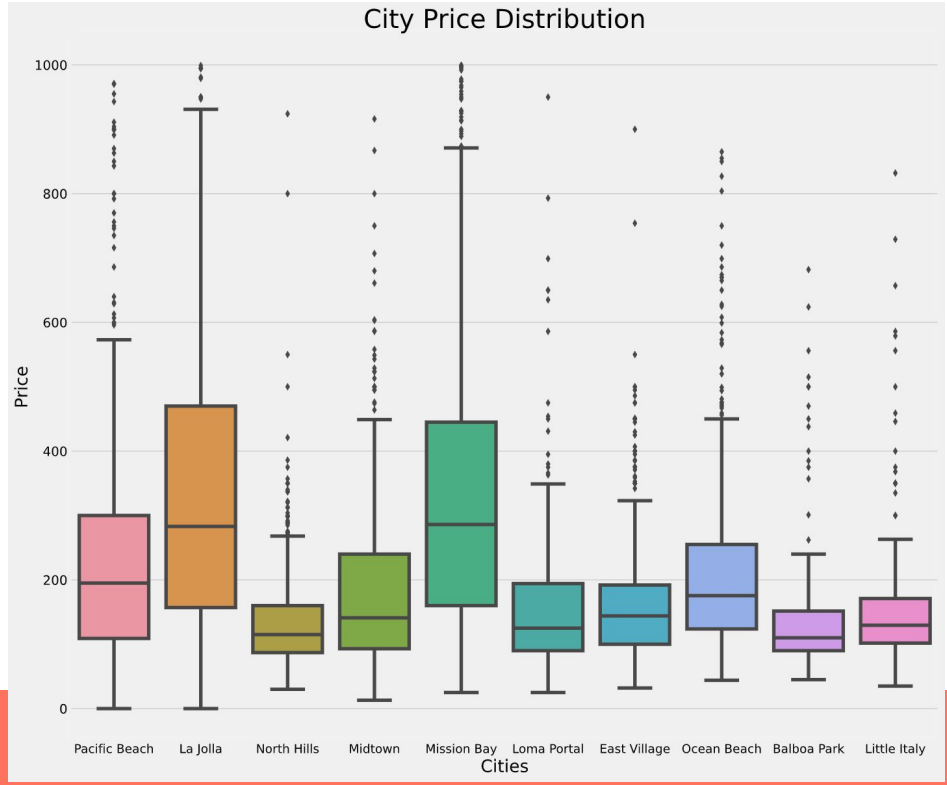


5 Days < Nights < 35 Days



Trends

	Price	Density	Growth	Invest
Coastal	$$$	H	↗	👍
Down-town	$$	H	→	👎
Suburb	$	L	↑	👍



Conclusions

- Growth in inland & suburban areas
- Consistent trends through the years
- Future Work:
  - Impact of amenities
  - Proximity to attractions / transportation
  - Cost-benefit analysis of investment

THANK YOU!

QUESTIONS?