Analytics Insights

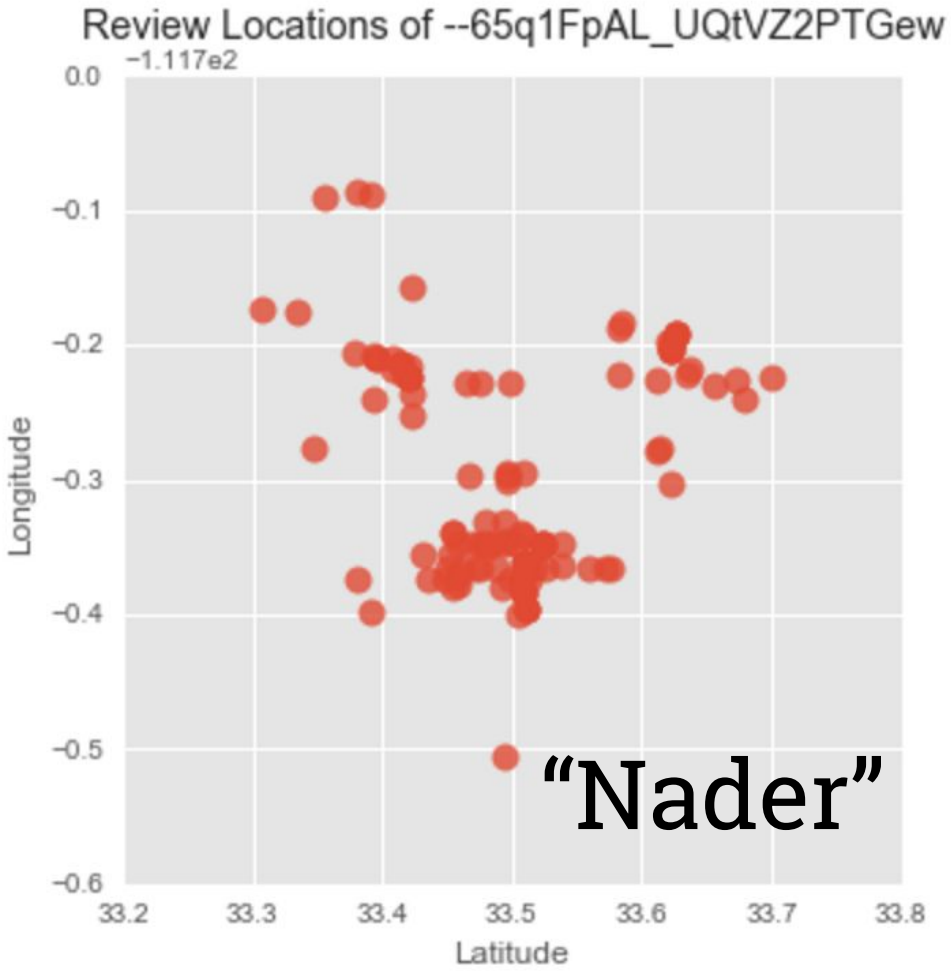
Luba Gloukhova for Slalom

*Do users **review** businesses that are **more expensive** when they are **away from home**?*

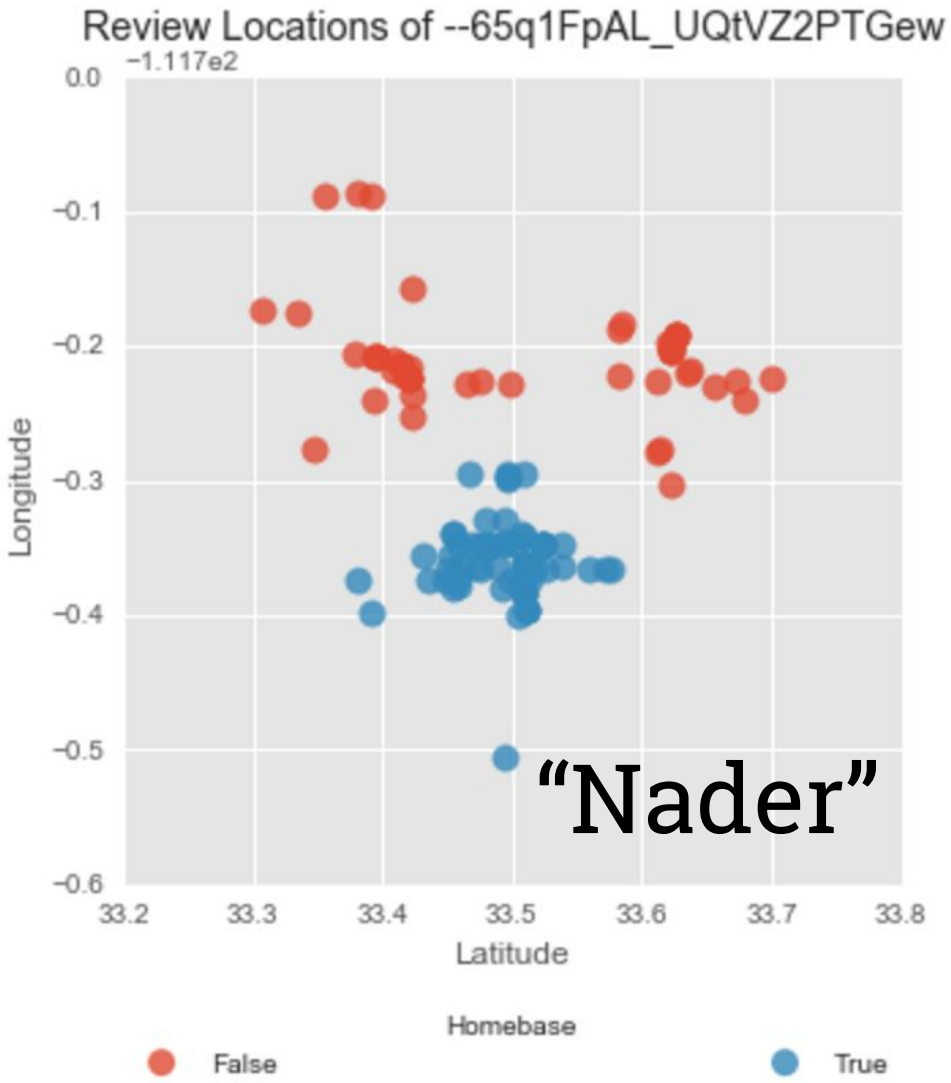
Identifying a User's "Home"

1. Subset to Users with > 100 reviews
2. Cluster a user's reviews based on Lat/Long
3. Assign "home" to cluster with most reviews
4. All other Reviews = "away"

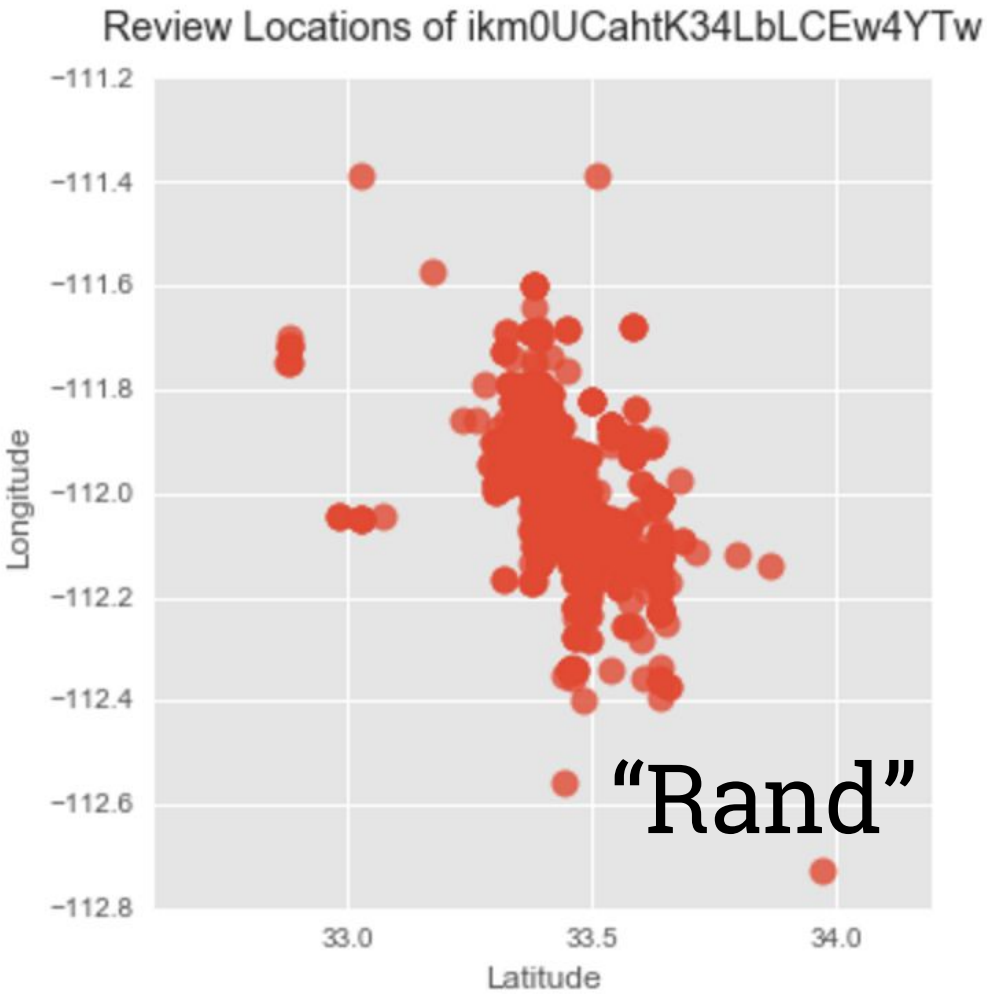
Identifying a User's "Home"



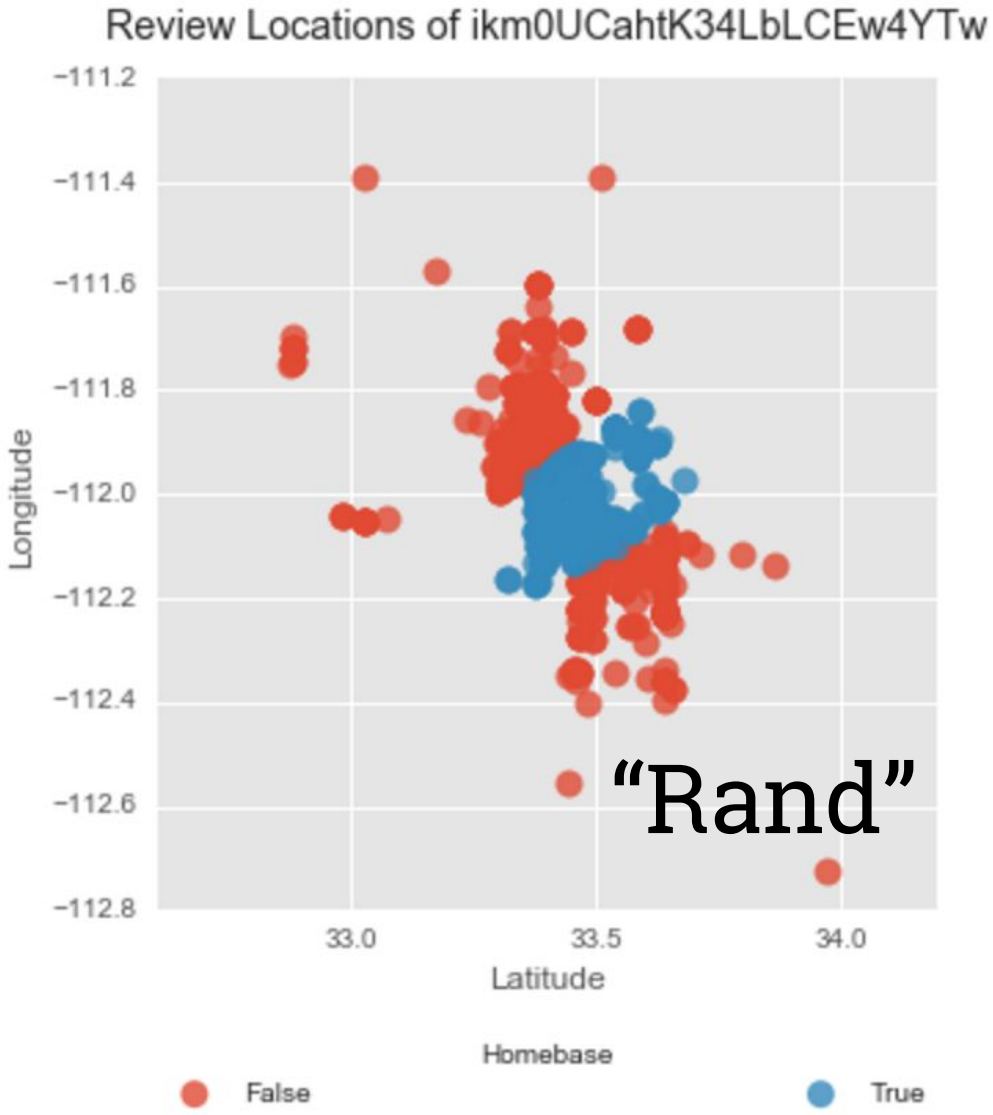
Identifying a User's "Home"



How to identify “Home”



How to identify “Home”



Business Price Range:

“Home” versus “Away”

	len	mean	std
	11177.0	1.78	0.60

	len	mean	std
	13884.0	1.72	0.59

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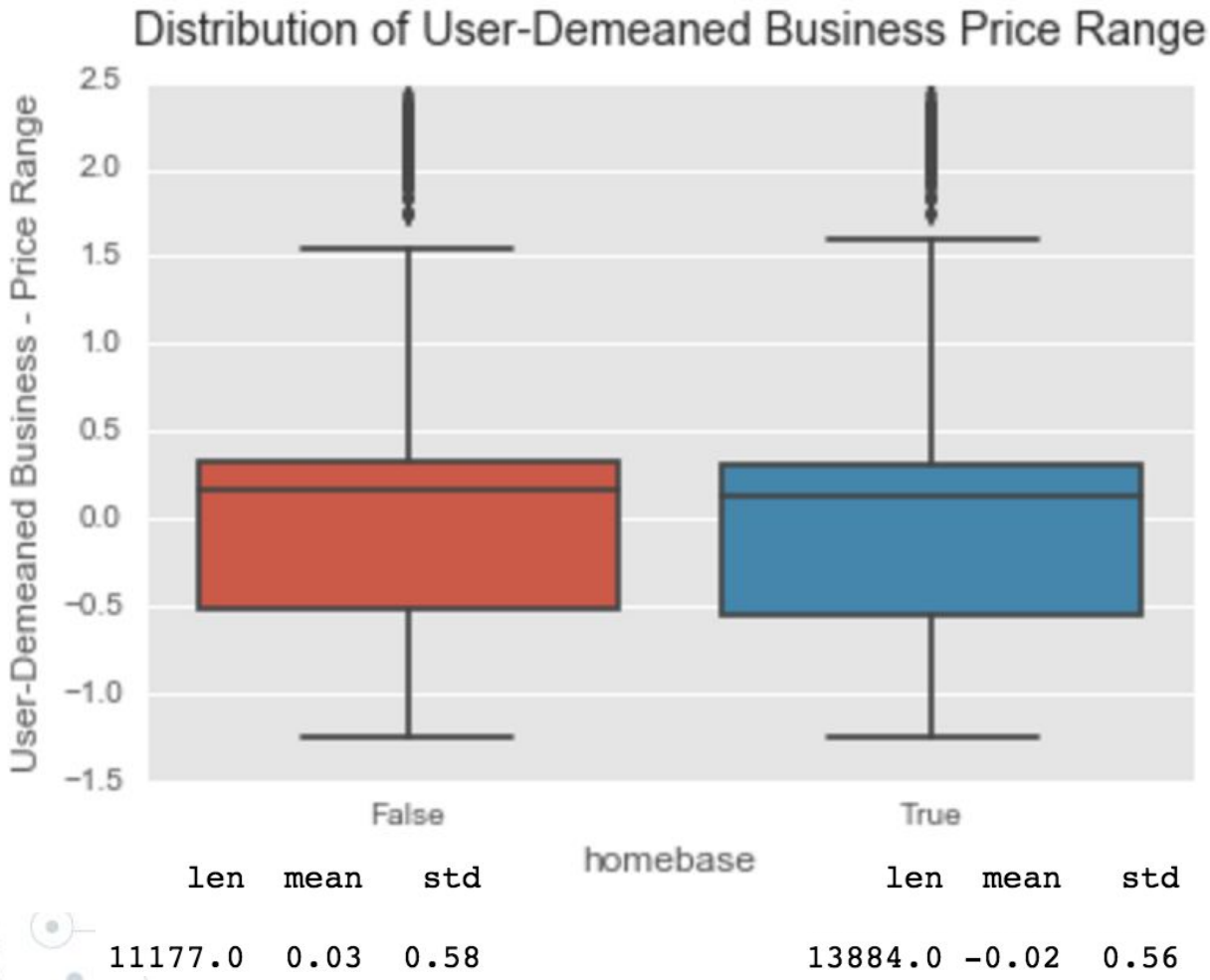

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True	13884.0	-0.02	0.56

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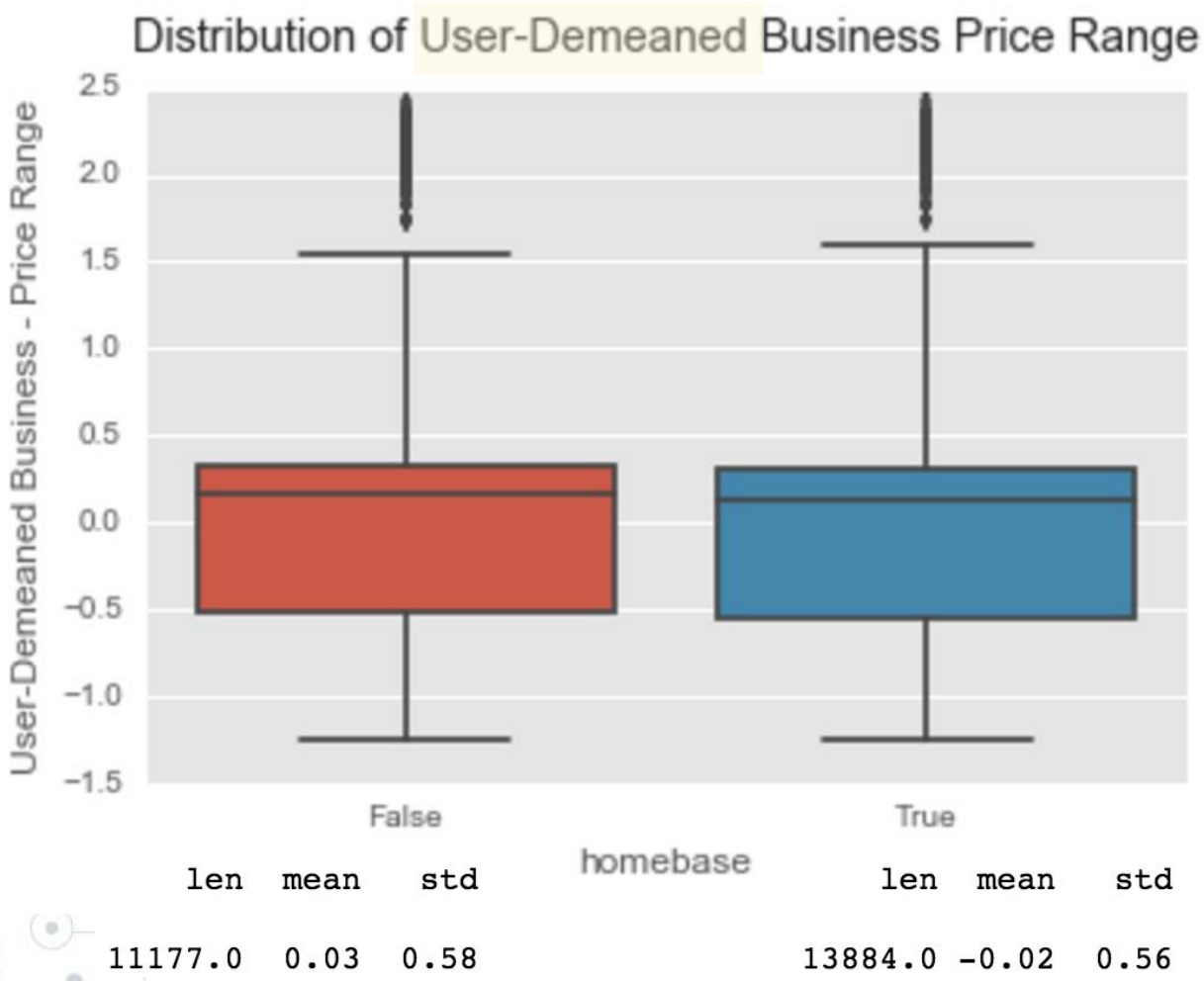

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Ho: equal pop. means

Ha: unequal pop. means

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p-value of 0.0000000034 indicates that

our data provides enough evidence to reject the null hypothesis for the **entire population**.

Are these user-demeaned differences ***statistically significant****?*

99% confidence interval

for the difference in means (home-away)

[-0.062, -0.024]

Are these user-demeaned differences ***statistically significant****?*

Yes!

Users review more expensive venues if they are further away

As a business owner:

- rethink local marketing
- target travelers
- partner accordingly
- cater to non-locals

Next Steps

- The Data:
  - How do we define Population?
  - Data Sample: representative?
  - Data Subset: Users w/ > 100 reviews

Next Steps

- Clustering
  - K = 3...
  - distance metric = Euclidean...
  - Can we do better with a Kernel?
  - Other ways to identify “home”?

Next Steps

- Continuous distance
- Geographic considerations
- Other factors:
  - Business Type
  - Region Type
  - Time of Day
  - Day of Week

Next Steps

- Can we extend this geographically
  - Business/Pleasure travel
  - Partner with Airlines, Accommodations
- Is this indicative of
  - user preferences
  - willingness to spend

Thank You!

Any questions?

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