

Yelper for Business Owners

Aspect Based Sentimental Analysis on Yelp reviews

GROUP 1

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Outline

Presentation 2



Problem Statement



Proposal & Evaluation




Shiny APP - **Yelper**



Questions & Answers


Problem Statement

Problem Statement




1. Umami Ramen & Dumpling Bar
 378 reviews
 \$\$ - Japanese, Chinese, Taiwanese
 "I've been here twice now, the first time being at Both times I have gone were fantastic! My husband was able to get away for a night out..." [read more](#)

Start Order Offers takeout and delivery



2. DumplingHaus
 289 reviews
 \$\$ - Chinese
 "Long time visitor, first time one of my family's favorite spots. Located in Hilldale Mall, it is a gem. This cozy spot features traditional and cuisine ranging from the best xiao (Dumplings) in the city to their famous egg noodles to fresh youtiao (Chir remind me of my childhood. The Haus great addition to any meal. The kitchen to almost open concept with many windows to watch dumpling formation or the chefs sautéing noodle dishes. The restaurant made me feel a little closer to my far away home while in school.



3. Tavernakaya
 201 reviews
 \$\$ - Japanese, Chinese, S
 "No idea why this place has 3 1/2 stars. It's way better than so many of the 4 star places around the area. The name suggests that it's an Izakaya, but as far..." [read more](#)

Start Order Offers takeout and delivery

★★★★★ 11/11/2019
 1 photo 1 check-in

Long time visitor, first time reviewer. I've been one of my family's favorite spots years. Located in Hilldale Mall, it is a gem. This cozy spot features traditional and cuisine ranging from the best xiao (Dumplings) in the city to their famous egg noodles to fresh youtiao (Chir remind me of my childhood. The Haus great addition to any meal. The kitchen to almost open concept with many windows to watch dumpling formation or the chefs sautéing noodle dishes. The restaurant made me feel a little closer to my far away home while in school.

★★★★★ 6/23/2019
 4 photos 1 check-in

I'm a huge fan of dim sum and when I was in town for a wedding, I had a dumpling (har gow) and pork

★★★☆☆ 2/26/2019
 1 photo

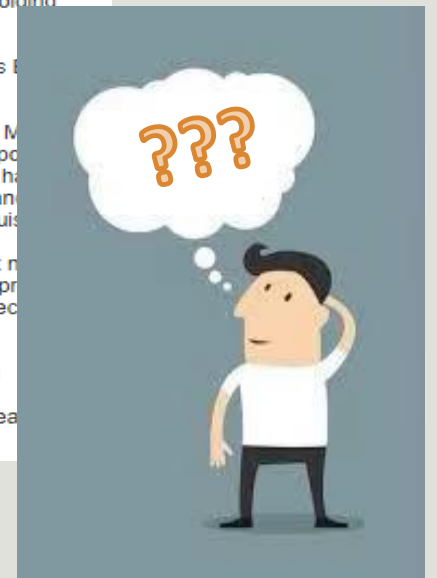
Just the dumplings I needed! Not quite the dumplings I wanted though. This place is good...on par but not the best.

This place caught my eye when I saw Xiao Long Bao on the menu and I'm a sucker for soup dumplings. They got a 6/10 for me. They were good, but lacked some of the flavor that you expect from soup dumplings and had very little broth (just a side note, but I dump the broth out of my dumplings, dip the dumpling, then eat both, so I know there was probably less than 1/4 tsp. Of broth in each dumpling) with some even being empty from leaking or poor folding (so sad!). Still, good for a dumpling fix!

The bao zi were my favorite thing that we got. Haus is definitely worth getting! The Black bean and Pork noodles were slightly disappointing. I expected something like Zha Jiang Mian but what it really was seemed like bean paste and pork over slightly over-cooked noodles...definitely could have just done that at home for 1/4 the price. Still, I ate and was satisfied (I'm just very picky about my East Asian cuisine).

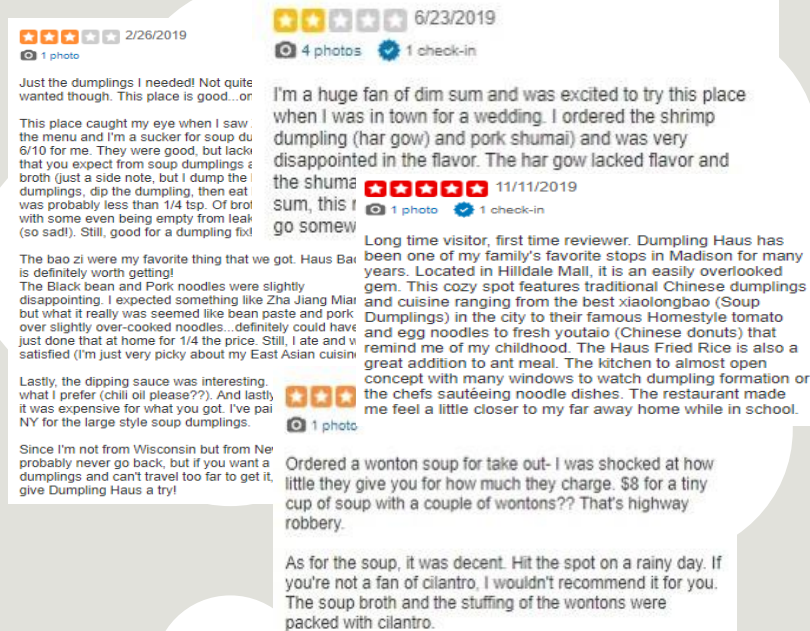
Lastly, the dipping sauce was interesting. Good but not what I prefer (chili oil please??). And lastly lastly (I know it was expensive for what you got. I've paid \$1 a piece in NY for the large style soup dumplings.

Since I'm not from Wisconsin but from New York I'll probably never go back, but if you want a taste of dumplings and can't travel too far to get it, by all means give Dumpling Haus a try!



Proposal & Evaluation

Model Proposal

A screenshot of a Yelp review for 'Dumpling Haus' in Madison, WI. The review is dated 2/26/2019 and has a rating of 3 stars. The reviewer mentions that the dumplings were good but the service was lacking. They also mention that the restaurant is a bit pricey and that the food is not as good as it seems. The review is part of a larger set of reviews on the Yelp website.

Just the dumplings I needed! Not quite wanted though. This place is good...or

This place caught my eye when I saw the menu and I'm a sucker for soup dumplings (har gow) and pork shumai and was very disappointed in the flavor. The har gow lacked flavor and the shumai was just a side note, but I dump the dumplings, dip the dumpling, then eat was probably less than 1/4 tsp. Of broth with some even being empty from leak (so sad!). Still, good for a dumpling fix

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The Black bean and Pork noodles were slightly disappointing. I expected something like Zha Jiang Mian but what it really was seemed like bean paste and pork over slightly over-cooked noodles...definitely could have just done that at home for 1/4 the price. Still, I ate and was satisfied (I'm just very picky about my East Asian cuisine)

Lastly, the dipping sauce was interesting. what I prefer (chili oil please??). And lastly, it was expensive for what you got. I've paid NY for the large style soup dumplings.

Since I'm not from Wisconsin but from New York, I probably never go back, but if you want a dumpling and can't travel too far to get it, give Dumpling Haus a try!

I'm a huge fan of dim sum and was excited to try this place when I was in town for a wedding. I ordered the shrimp dumpling (har gow) and pork shumai and was very disappointed in the flavor. The har gow lacked flavor and the shumai was just a side note, but I dump the dumplings, dip the dumpling, then eat was probably less than 1/4 tsp. Of broth with some even being empty from leak (so sad!). Still, good for a dumpling fix

Long time visitor, first time reviewer. Dumpling Haus has been one of my family's favorite stops in Madison for many years. Located in Hilldale Mall, it is an easily overlooked gem. This cozy spot features traditional Chinese dumplings and cuisine ranging from the best xiaolongbao (Soup Dumplings) in the city to their famous Homestyle tomato and egg noodles to fresh youtaio (Chinese donuts) that remind me of my childhood. The Haus Fried Rice is also a great addition to any meal. The kitchen is almost open concept with many windows to watch dumpling formation or the chefs sautéing noodle dishes. The restaurant made me feel a little closer to my far away home while in school.

Ordered a wonton soup for take out- I was shocked at how little they give you for how much they charge. \$8 for a tiny cup of soup with a couple of wontons?? That's highway robbery.

As for the soup, it was decent. Hit the spot on a rainy day. If you're not a fan of cilantro, I wouldn't recommend it for you. The soup broth and the stuffing of the wontons were packed with cilantro.

Aspect Based Sentimental Analysis:



Food



Service



Ambience



Price



Miscellaneous

Model Proposal

❖ Positive & negative score from *Aspect Based Sentimental Analysis* :

food.pos	food.neg	service.pos	service.neg	ambience.pos	ambience.neg	price.pos	price.neg	misc.pos	misc.neg
59.50	-16.5	47.0	-24.00	20.50	-1.0	1.0	-7.0	5.5	-3.0

❖ Calculate score for each category, take “Food” as an example* :

$$\text{adj.fp} = \frac{\omega_{f.pos} * fp}{\omega_{f.pos} * fp + \omega_{f.neg} * fn}$$

* adj.fp: score for Food; adj.fp will be normalized to 0-5 scale;
 $\omega_{f.pos}$: weight of fp; fp: food.pos/review.counts of the business.

Model Evaluation



Significance*

5/5

Accuracy**

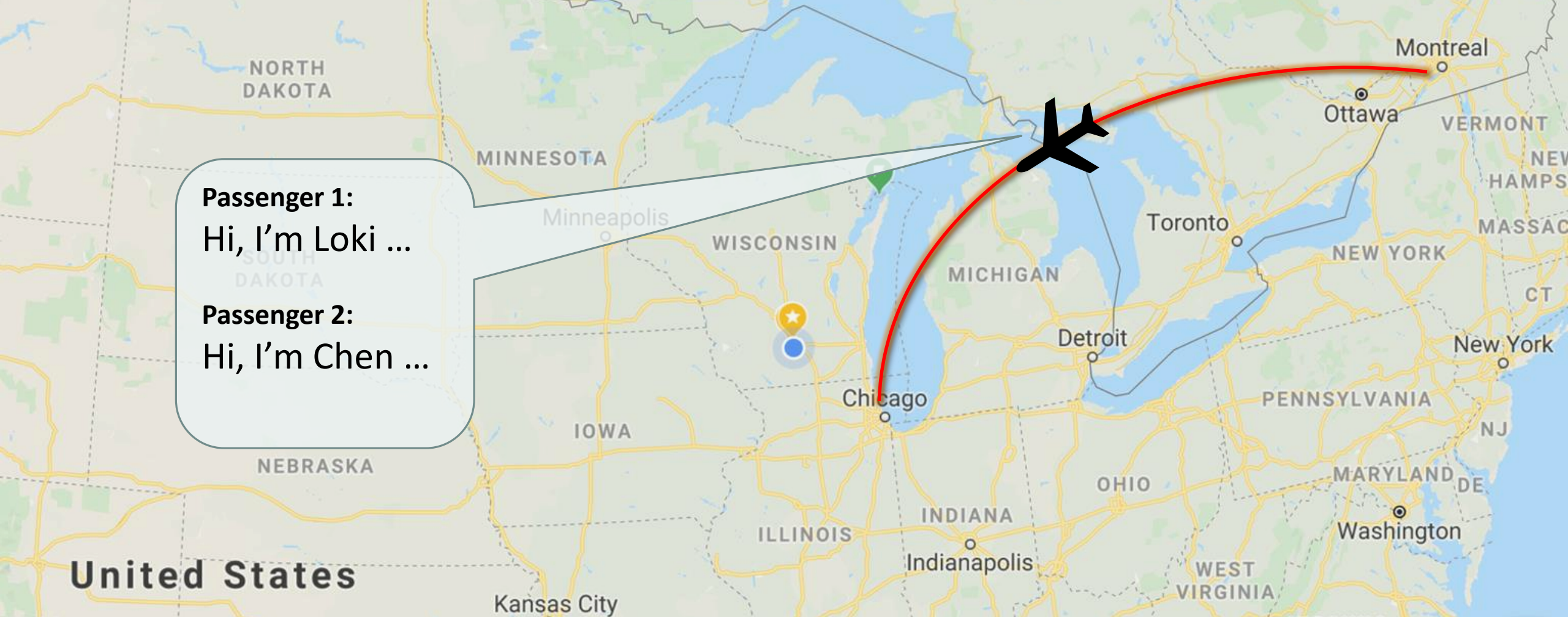


*Statistically significant detecting whether a restaurant is good;

**Accuracy calculated by leave-one-out cross validation;

Note: Evaluation based on GLM: star ~ category scores.

Shiny APP - Yelper



Passenger 1:
Hi, I'm Loki ...

Passenger 2:
Hi, I'm Chen ...

Flight from Montreal to Chicago...

Questions & Answers

Happy Thanksgiving!