

RESTAURANT REVIEWS ANALYSIS

Gaining insights with Review Text Data



WHY?

The ability to analyze and extract information from customers has great value to a business.



How can we leverage Yelp review data to give us insights about our business?

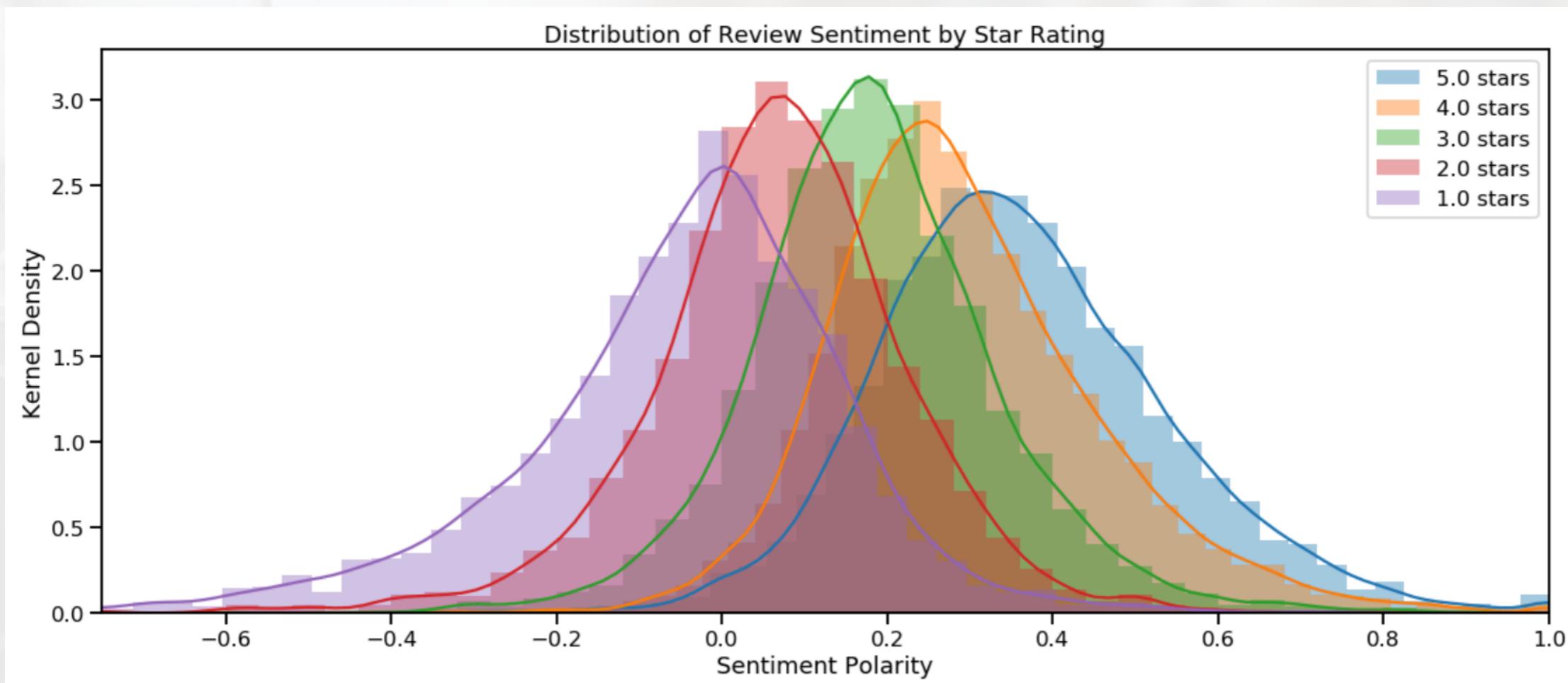
WHAT DATA HAS BEEN GATHERED?

- Scraped 59,274 reviews from 1081 businesses in the Albany, NY area.
- Data comes from yelp.com using the search term “restaurants”.



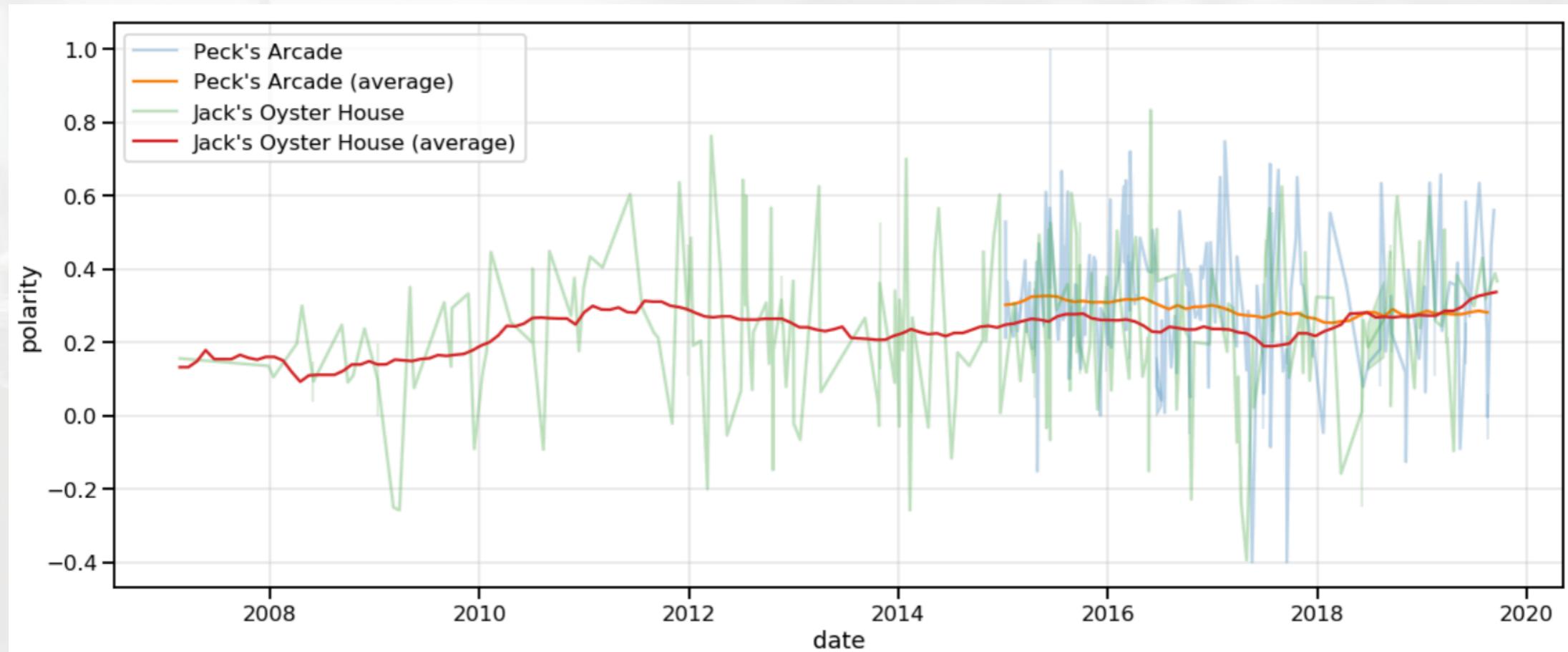
INSIGHTS - SENTIMENT RATING SUMMARY

► Consistency



INSIGHTS - SENTIMENT SCORE OVER TIME

- Compare review sentiments for different establishments.



INSIGHTS - KEYWORDS FOR A SINGLE RESTAURANT

- High-rated reviews compared to low-rated reviews.

A word cloud visualization for high-rated reviews. The words are primarily in blue and green, with a large central word "madison_pour_house". Other visible words include "beer_selection", "constantly_changing", "deviled_eggs", "couple_drinks", "cabinets_open", "decided_grab", "ended_going", "left_feeling", "left_hungry", "place_sucks", "typical_bar", "relaxed_atmosphere", "tap_list", "beer_list", and "mac_cheese".

4-5 Stars

A word cloud visualization for low-rated reviews. The words are primarily in red and orange, with a large central word "place_sucks". Other visible words include "madison_pour_house", "acknowledge_presence", "train_staff", "cabinets_open", "couple_drinks", "ended_going", "left_feeling", "left_hungry", "another_table", "waiter_came", and "german_style".

1-2 Stars

INSIGHTS - WORD CONTEXT

Keywords: *Customer Service, Waitstaff, Food*



- | | |
|--|---------|
| bartenders, servers_always, people_work, silver,
bartenders_attentive , pitching, bar_tenders, servers | 5 stars |
| bartenders, quality_food , service_friendly ,
fun_atmosphere , wine_list , dining_experience,
food_consistently_good , ambience | 4 stars |
| acoustics, courteous , servers_always, reasonably,
waitress_nice , i'm_giving, wine_list , vibe | 3 stars |
| food_subpar , historic_building, live_area,
hoping_would, terrible_service , looking,
beer_selection , enough | 2 stars |
| chains , couple_things, ranged, drink_selection ,
never_experienced, reviews, absolute_worst,
service_terrible | 1 stars |

NON YELP DATA? MODELING ANY TEXT

A Classifier Model was created to assign a star rating to any block of text.

TESTING MODEL with sample text:

It was just ok. My first experience was better.

The fries were cold but the burger tasted great.

I'll give them another shot.

MODEL SAYS: 3.0 stars!

FUTURE WORK

- Additional sources of review-like text data.
 - Trend analysis of keywords.
 - Incorporating better word-cloud visualization on the dashboard.



THANK YOU!

service person
Want great
food companion
huge
place always
ambience food
lower price
wine list
good consider
not just ordinary
kanish best
food make
particularly true
okay price
restaurant cute
noise think
weekend vibe
girlfriend want
reliable price
average lower
son girlfriend
crowd care
exception lemon
pastries sandwich
big good
guess
kind place
thrill west
location
ambie
huge pastries
bit pack
rao good
person di
star reali
diner ish
wASN fresh
sashimi wasn
line minute
Italian restaurant french food
little noise
big deal
Inside little

BACKUP SLIDES

FURTHER EXPLORATION INTO WORD CONTEXT - 1 STAR

Keywords:

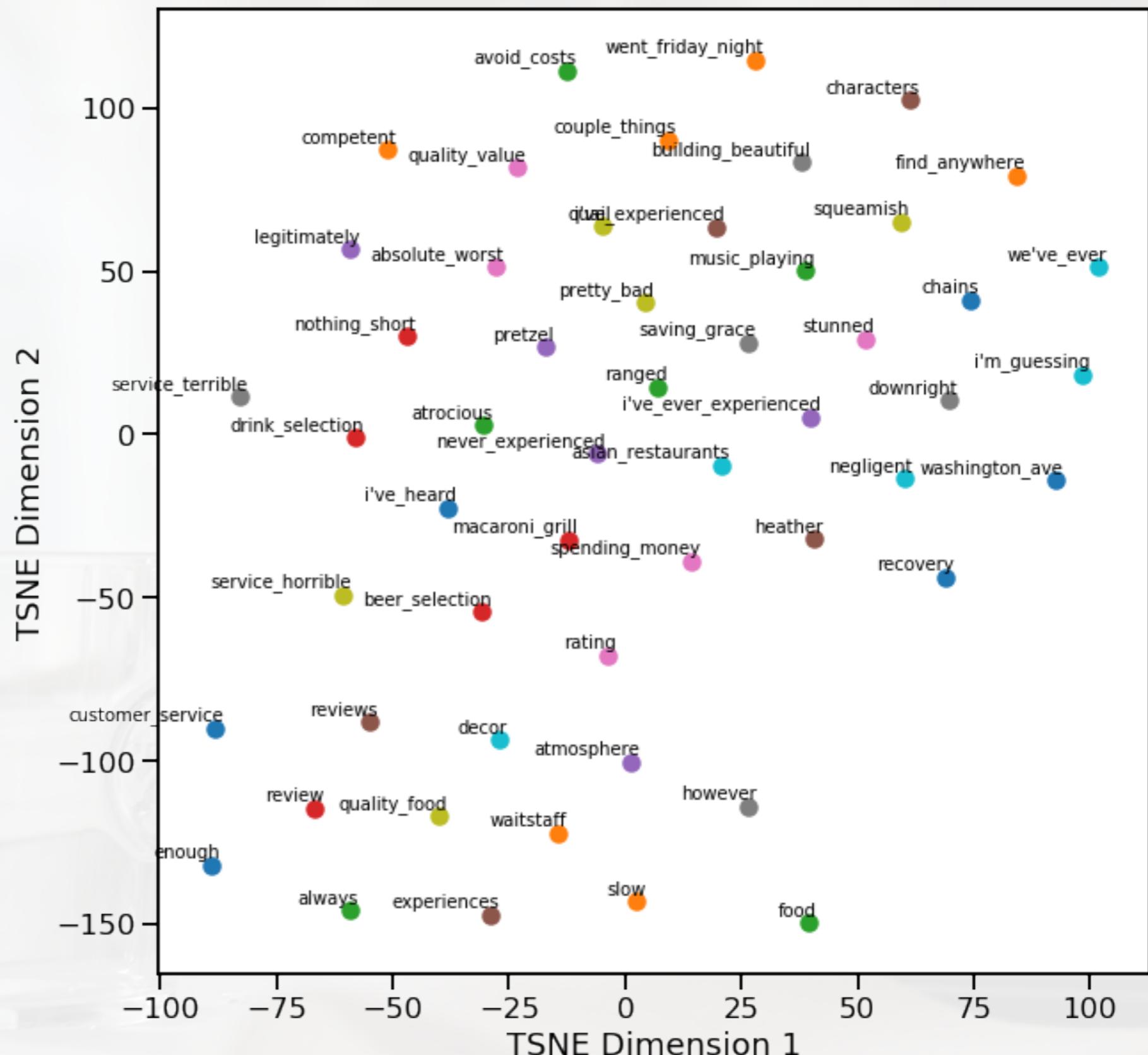
Customer Service

Waitstaff

Food

Context:

1 - star reviews



FURTHER EXPLORATION INTO WORD CONTEXT - 5 STARS

Keywords:

Customer Service

Waitstaff

Food

Context:

5 - star reviews

