Get The Foodies

Presented by Erica Ho

The Emerging Power of Crowd-sourced Review Forum

- **142 Million unique visitors / month**

- **Yelp system:**

  - **67% of reviews are 4 stars +**

  - **70% of business are**

    recommended

Understanding Customers

Conduct sentiment analysis on customer reviews to help business owners understand what customers like or dislike about their restaurants.

Data Overview

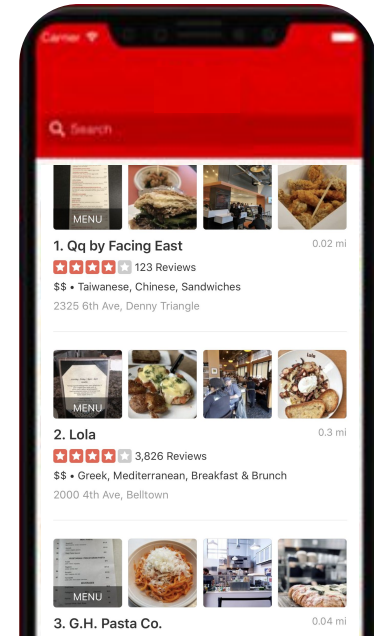## Web Scraping the Latest 200 Ratings and Reviews

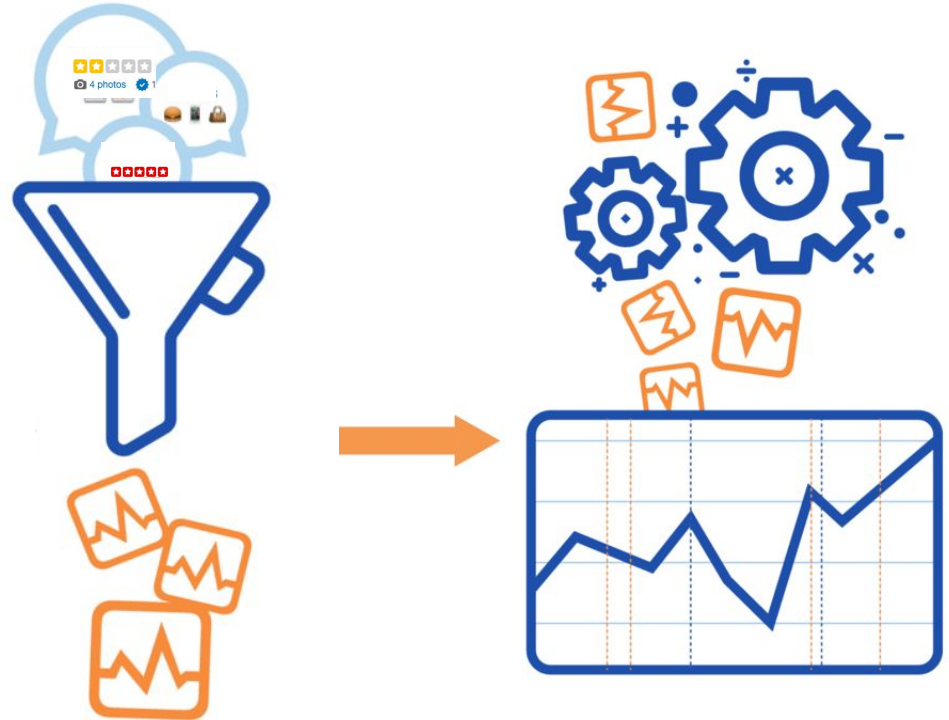|	Positive Reviews	Negative Reviews
Customer Ratings	4 Stars 5 Stars	1 Star 2 Stars 3 Stars

Modeling

- TF-IDF Vectorizer

- Logistic Regression

- Shapley Value

Use Case

- Problem:

    Low customer retention rate

- The Process:

    Conduct Get The Foodies!
    Analysis

Use Case

	Words with Positive Impact on Ratings	Words with Negative Impact on Ratings
1	wonderful	ordered
2	birthday	packed
3	loved	typical
4	menu	meat
5	mushrooms	steakhouse
6	knowledgeable	really
7	staff	fries
8	took	restaurants
9	ribeye	interesting
10	cuts	medium

Use Case

higher ⇄ lower
output base value

| -0.3617 | -0.2617 | -0.1617 | -0.06168 | 0.03832 | **0.12**1383 | 0.2383 | 0.3383 | 0.4383 | 0.5383 | 0.6383 |

friends = 0.2952 | took = 0.1963 | list = 0.2632 | dry = 0.2632 | decent = 0.2405 | night = 0.1858 | really = 0.1475

('Negative Review:',
 "After a few decent happy hours here we took the full dinner plunge. Really none of the magic of Whale Wins. A steak so dry it was at jerky level. Wish that we had gone for the aligot, but missed that chance. The drinks were a bit unimaginative and even the suggested wine pairing seemed picked at random. We may have visited on an off night, but after hearing similar complaints from friends and especially ones that we steered here I have to say it's off my list.")

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