Makeup Review Engine
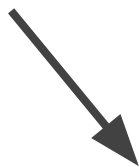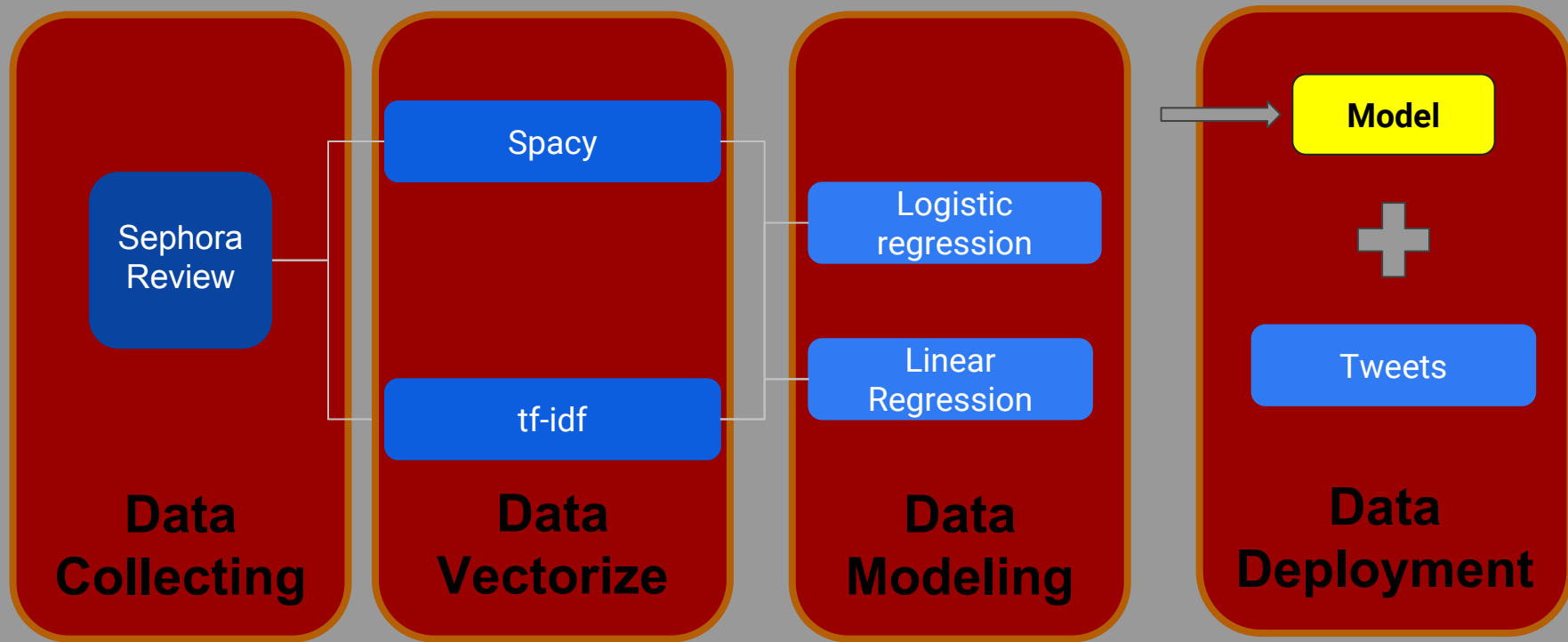
Yichen Hsueh
Chihung Hsieh

Motivation

Goal

"To help customers finding their preferred product by analyzing customer reviews"

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Flow

Experiment

- Pseudo Score
- Auto Summary

Data Collecting

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- Collected data from Sephora Eyeshadow 63 products, 20842 reviews, stored in MongoDB
- Based on 63 products, collected relevant 10726 tweets

★★★★☆ ← **Label**   1 Apr 2017

gorgeous balm

Great tint, texture, and smell. These are like an oil consistency, and have a great staying power. Very lightweight and comfortable to wear. Love!!!

↑

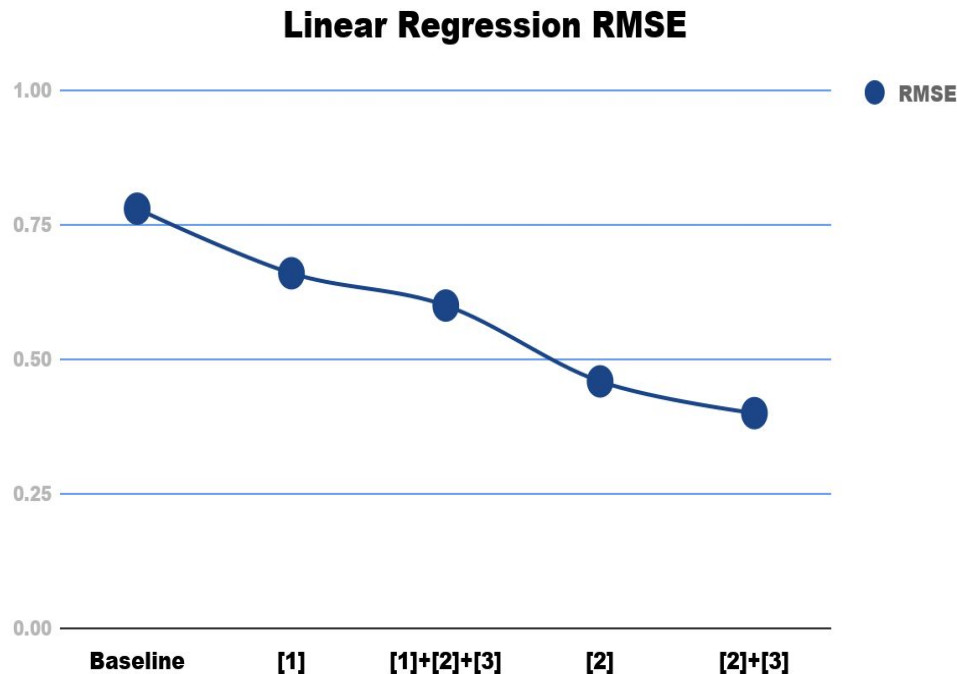**ReviewText**

Data Vectorize & Modeling

— — —

Baseline

- **Uni-gram**
- **tf-idf**

[1]:df 5%

[2]:n-gram[1-3]

[3]:Rounded rating
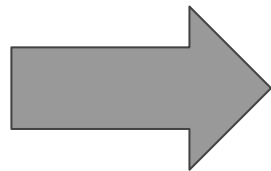
Linear Regression RMSE

Logistic Regression

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Top 10 Positive Keyword

[('tattoo', 26.445089039232112),
 ('621', 24.194678518198852),
 ('duh', 20.10567389965062),
 ('11:30', 19.551347594720983),
 ('artistri', 19.407293287771047),
 ('wetter', 19.133090009554795),
 ('glitterglu', 17.127044465754928),
 ('outlin', 16.80750950308386),
 ('cheat', 16.6650174781242),
 ('fall-off', 16.19202874336911)]

Tune Minimum
Document Frequency

[('amaz', 1.0312141047656285),
 ('perfect', 1.0265879239509372),
 ('love', 0.9534794080632091),
 ('best', 0.9139673049195646),
 (')', 0.8615668876606427),
 ('favorit', 0.7810621053710018),
 ('easi', 0.7253480806394224),
 ('highli', 0.711523723387444),
 ('great', 0.7009579690809649),
 ('day', 0.6552839280874101)]

Deployment

- Flask
- Trend

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Web Application

— — —

Real-time Review from Twitter

Find most interesting eyeshadow review on Twtitter

Sephora review:

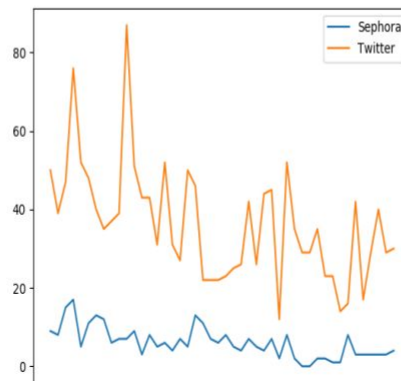NARS Duo Eyeshadow 4.4783

2283

Twitter review:

1689

Review Trend:

2018/4/15   Makeup Review Analysis

Score:

4.6027235050325634

Future Work

- Better Model

- Auto summary

Want to Try List

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- Non-linear regression
- Linear SVM
- LSTM