

Improving Hyatt Online Reputation



TripAdvisor Reviews Predictions



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01

Overview

Objectives



Improving Hyatt's online reputation

Who we are

→ [TripAdvisor](#) new branch advising hotels on boosting their online reputation

The Task

→ Shaping Hyatt's strategy to increase their online reputation

Objectives

1. Short-term: improve guest experience: areas linked to guests complaints
2. Long-term: reduce the share of **negative reviews**:
our tool collects real-time reviews & highlights negative

Intended Audience

→ Hyatt's corporate director of guest experience





02

Preparation

Reviews Preprocessing



Preprocessing over 20,000 Reviews

Sentiment Categorization

→ Detractors vs Not Detractors

Text Transformation

- Individualized words (tokenized)
- Removed common function words (stopwords)
- Reduced words to their base (lemmatized)

Detractors Reviews Word Cloud





03

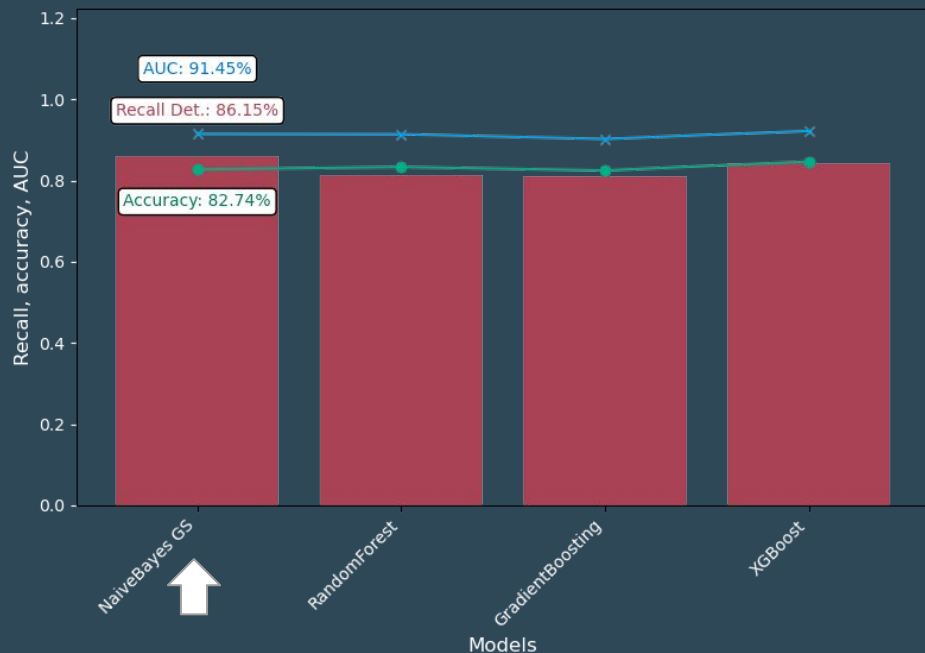
Modeling

Predicting Detractors



Predicting Detractors

Classification Metrics for All Models



Word Scoring Through the TF-IDF Method

→ How often a word appears & how unique it is

4 Models Stand Out



- Naive Bayes Tuned
- Random Forest
- Gradient Boosting
- XGBoost



04

Evaluation

Best Model

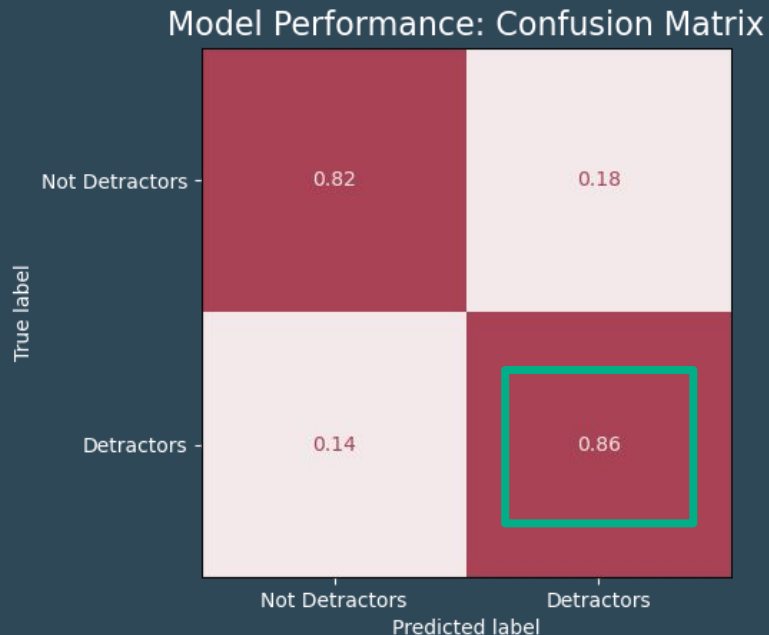


The Best Predictions of Detractors

Model Performance

- Over 86% of detractors were correctly identified (recall: main metric)
- Correct predictions for over 83% of all reviews (accuracy)
- Strong ability to distinguish detractors from not (AUC: 0.91)

The cost of false negative is bigger than false positive.





05

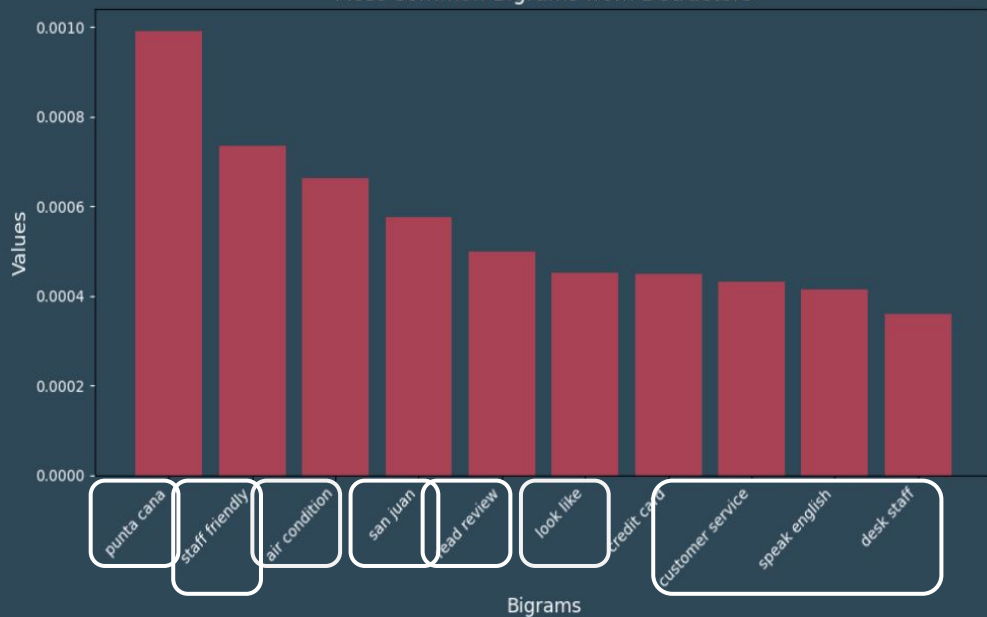
Recommendations

Improving Guest satisfaction



Improving guest satisfaction

Most Common Bigrams from Detractors



1. Focus on resort hotels

→ These hotels receive the most complaints

2. Develop a maintenance program with engineering teams

→ Appearance & dysfunctionality cause frustrations

3. Train staff to enhance friendliness

→ Also ensure guests' languages are spoken

4. Respond to reviews

→ Detractors advise to read reviews



06

Next Steps

Deployment



Deployment

Once areas of focus are addressed, the next step is:

→ to **reduce** the share of **reviews from detractors**

To do this, ensure guests post real-time reviews:

1. Entice guests to leave real-time reviews
2. Provide us the contacts to be alerted about detractors
3. Communicate with your teams about the new tool





Contact Information

For more details, contact:
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Access the full notebook
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Thank you

