

# 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 & alerts you on 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

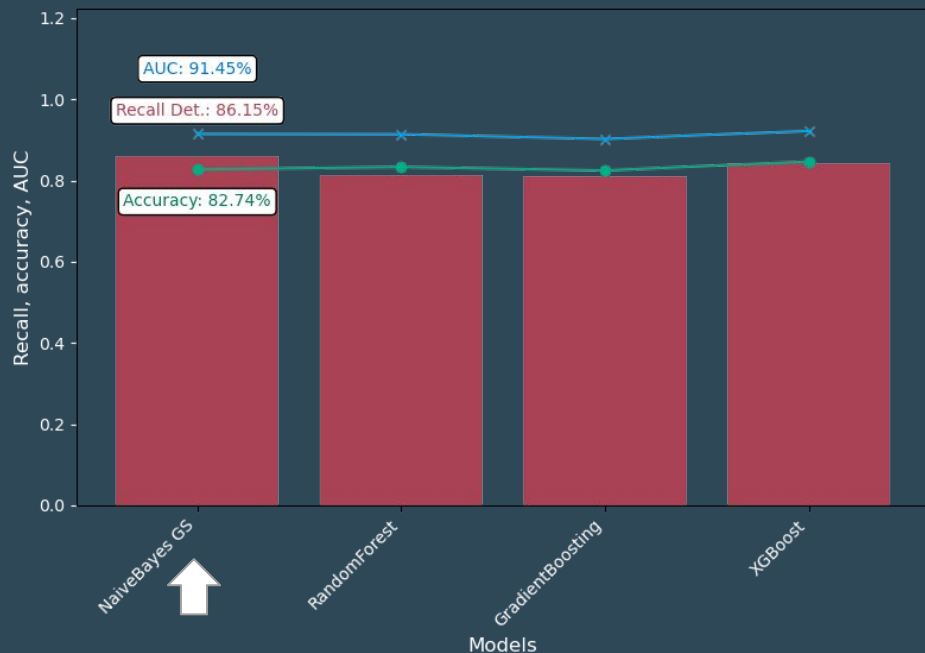
# Modeling

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

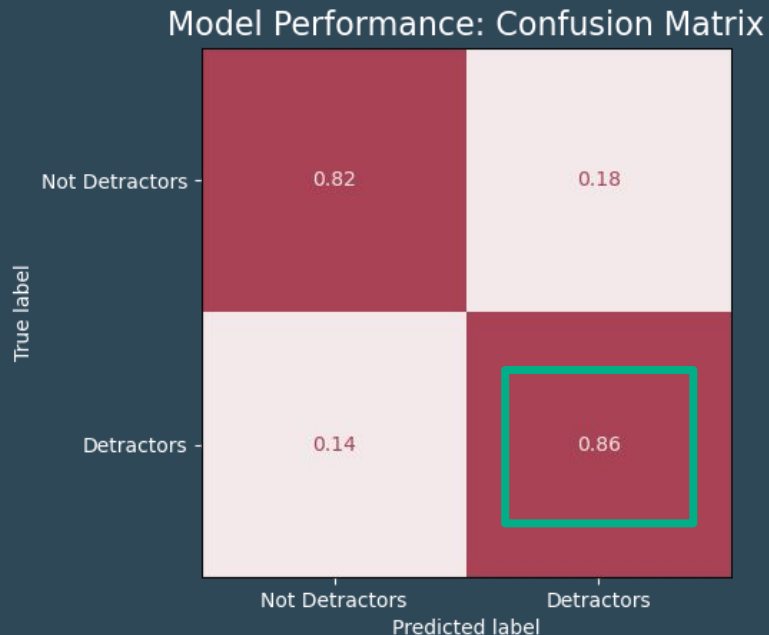


# The Best Predictions of Detractors

## 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.





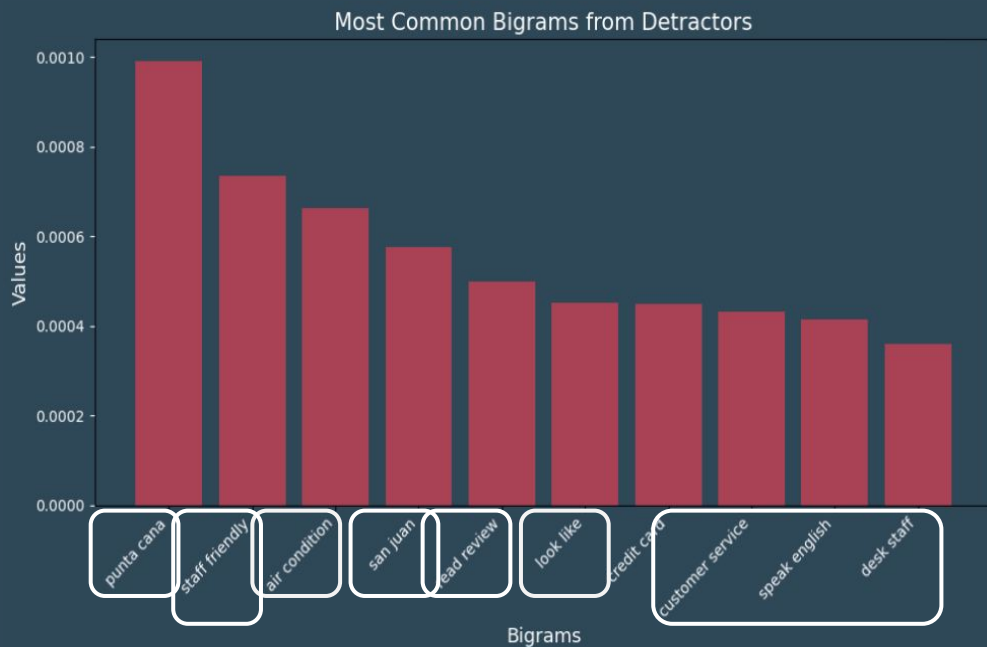
05

# Recommendations

Improving Guest satisfaction



# Improving guest satisfaction



## 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

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Access the full notebook  
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**Thank you**

