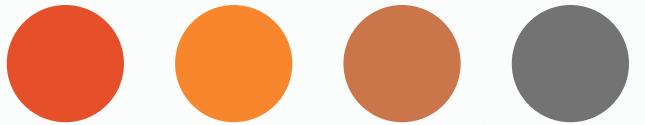


# User Engagement Analysis For

**RESTAURANT SUCCESS**



# About YELP

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**Yelp is a web and mobile platform that functions as a crowd-sourced local business review site. Users can submit reviews, photos, and tips about businesses, while also browsing information and ratings left by others.**

# AGENDA

- Problem Statement
- Research Objectives
- Hypothesis
- Data Overview
- Analysis and Findings
- Recommendations

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Quantify the correlation between user engagement (reviews, tips, check-ins) and review count/average star rating.



Analyze the impact of sentiment on review count and average star rating.



Time Trends in User Engagement

# Hypothesis

- Higher levels of user engagement (more reviews, tips, and check-ins) correlate with higher review counts and ratings for restaurants.
- Positive sentiment expressed in reviews and tips contributes to higher overall ratings and review counts for restaurants.
- Consistent engagement over time is positively associated with sustained business success for restaurants.

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- The five JSON files are business, review, user, tip and checkin.
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# Analysis and Findings

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- Out of 150k businesses, 35k are restaurants business and are open.
- Table showing distribution of business success metrics (review count and average rating):

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min_review_count	5.000000
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average_star_rating	3.477281
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## Highest Rating

	name	review_count	avg_rating
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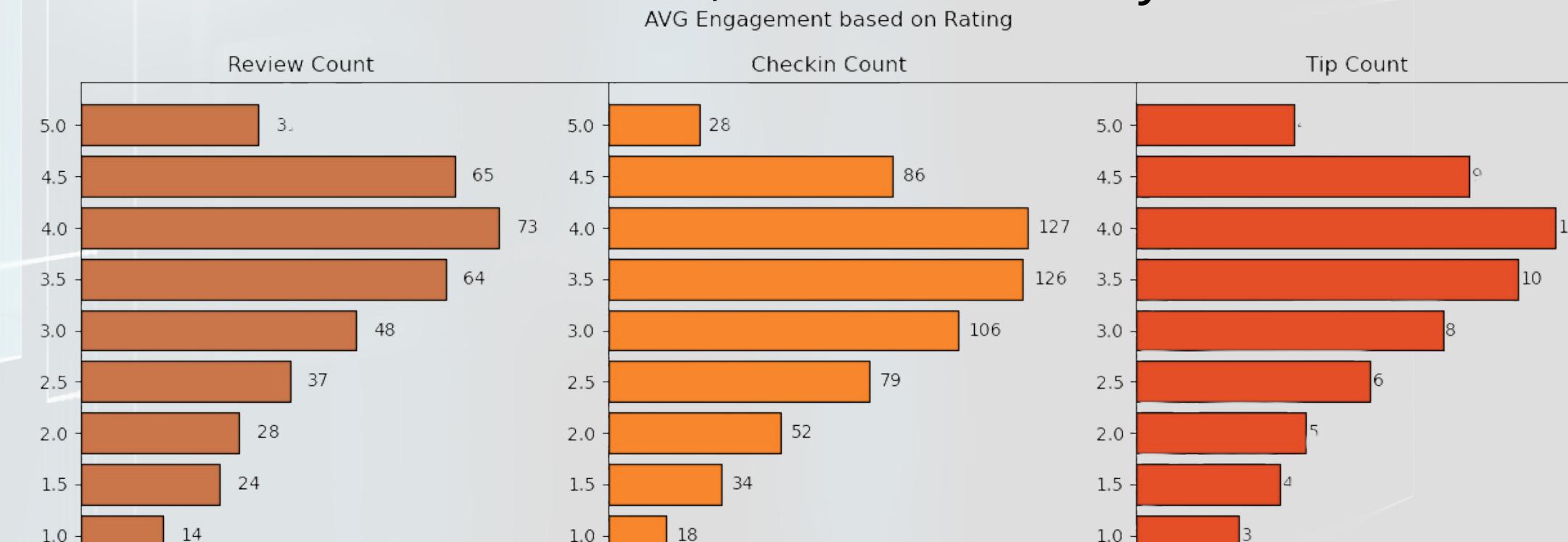
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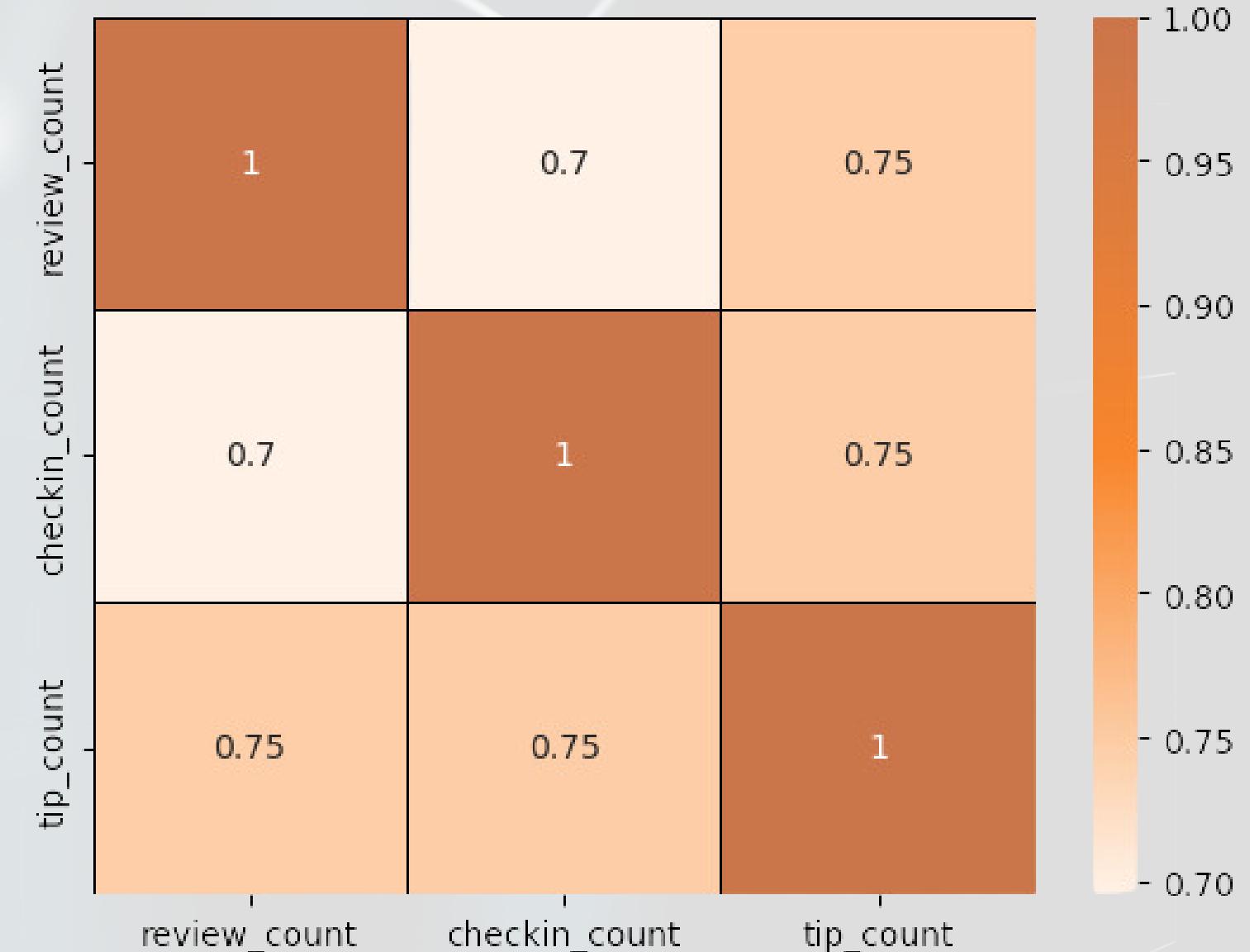
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# Is there a correlation between the number of reviews, tips, and check-ins for a business?

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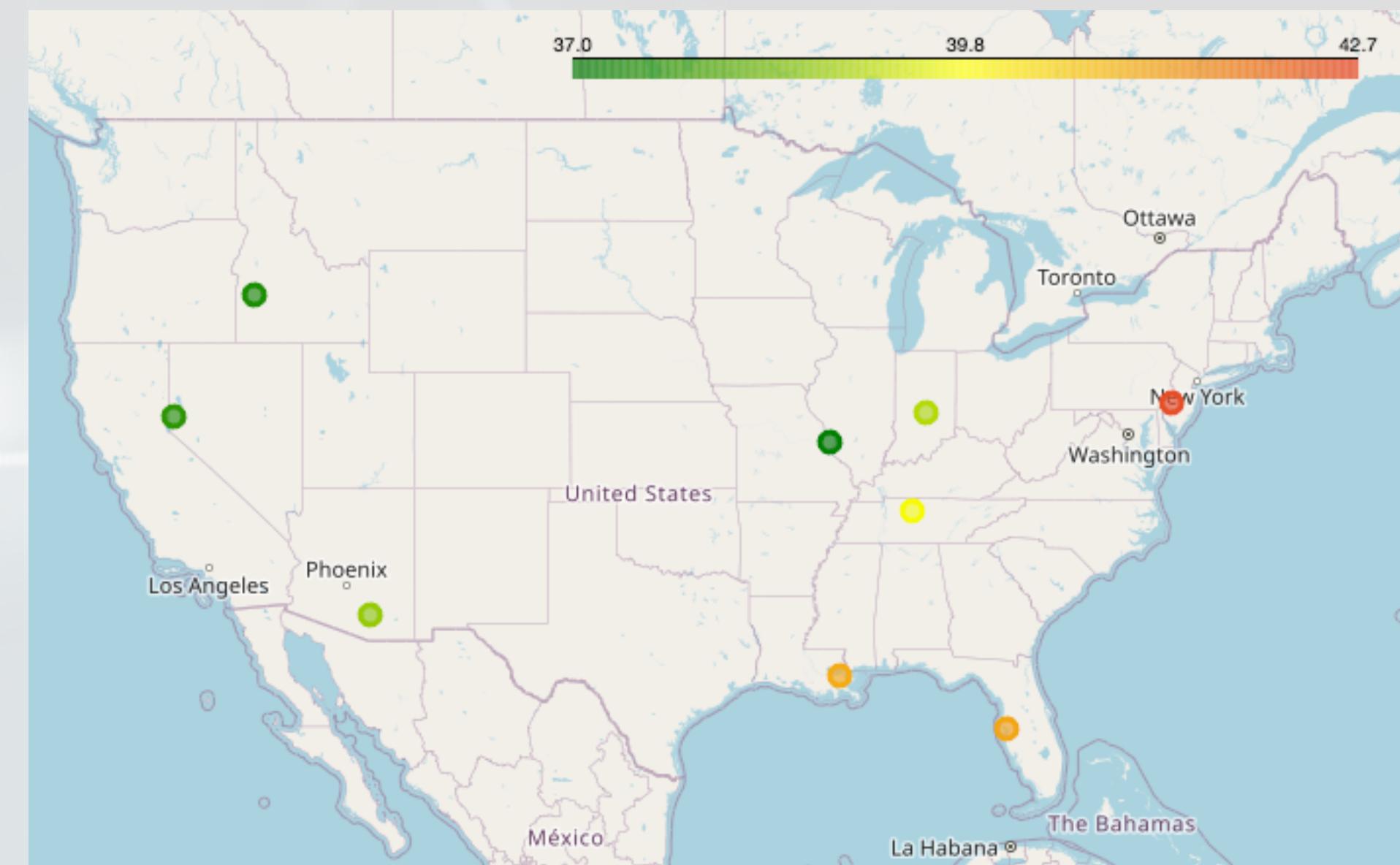
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- Data indicates a clear correlation between higher ratings and increased user engagement across reviews, tips, and check-ins.
- This pattern underscores the importance of maintaining high service and quality standards, as these appear to drive more reviews, check-ins, and tips, which are critical metrics of customer engagement and satisfaction.

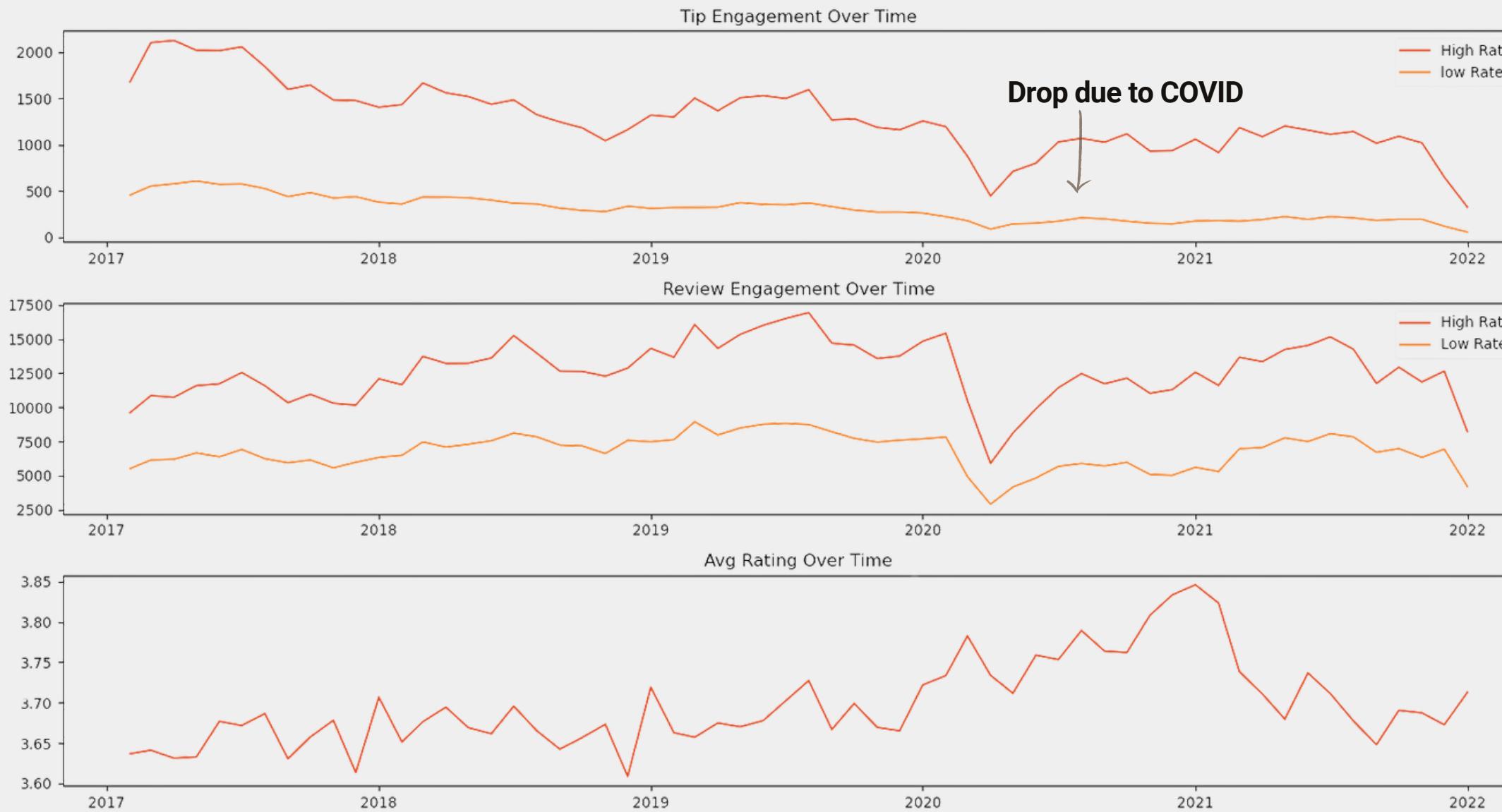
rating_category	review_count	checkin_count	tip_count
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# How do the success metrics of restaurants vary across different states and cities?

- Philadelphia emerges as the top city with the highest success score, indicating a combination of high ratings and active user engagement.
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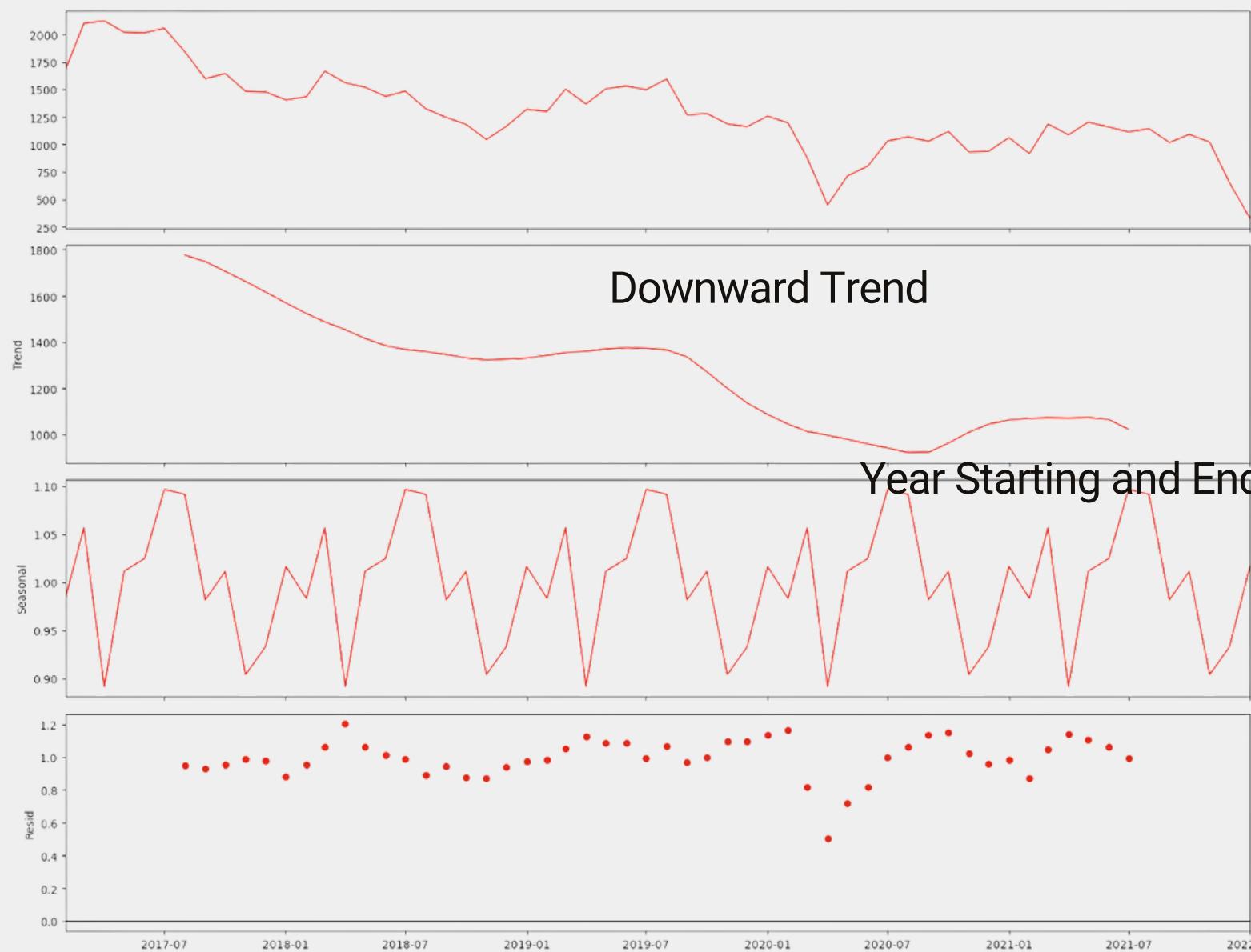
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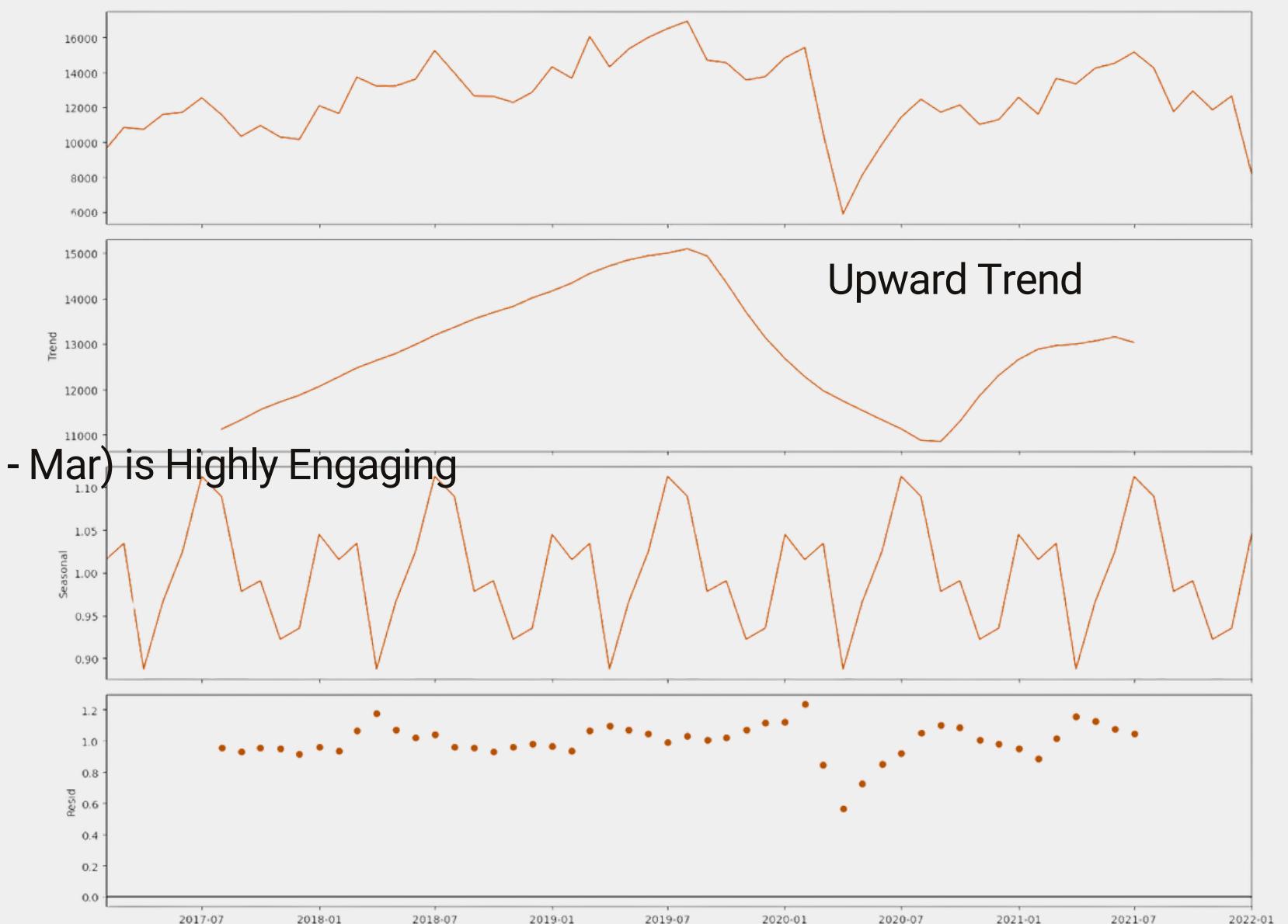
- Successful businesses, particularly those with higher ratings (above 3.5), exhibit consistent and possibly increasing user engagement over time.
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# Trend and Seasonality Analysis

## Tip Count

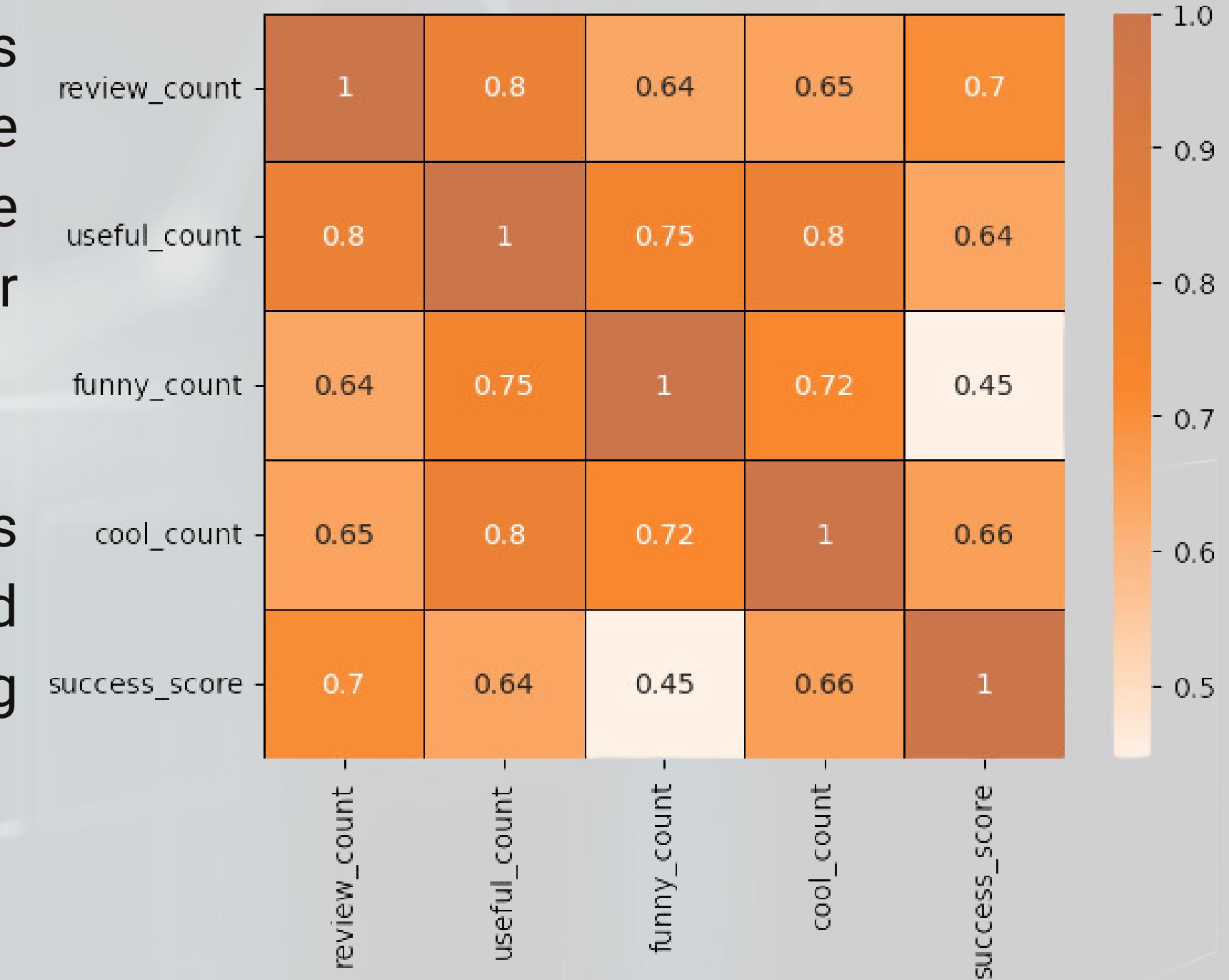


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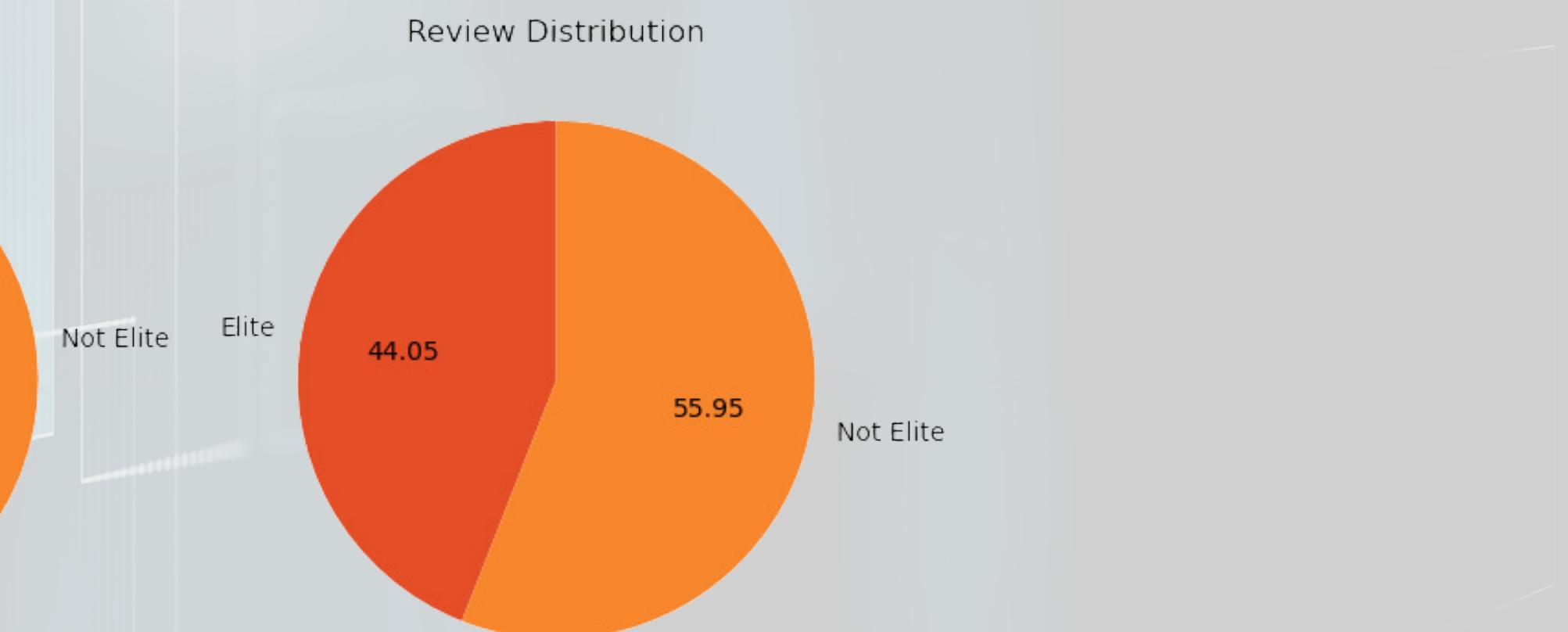
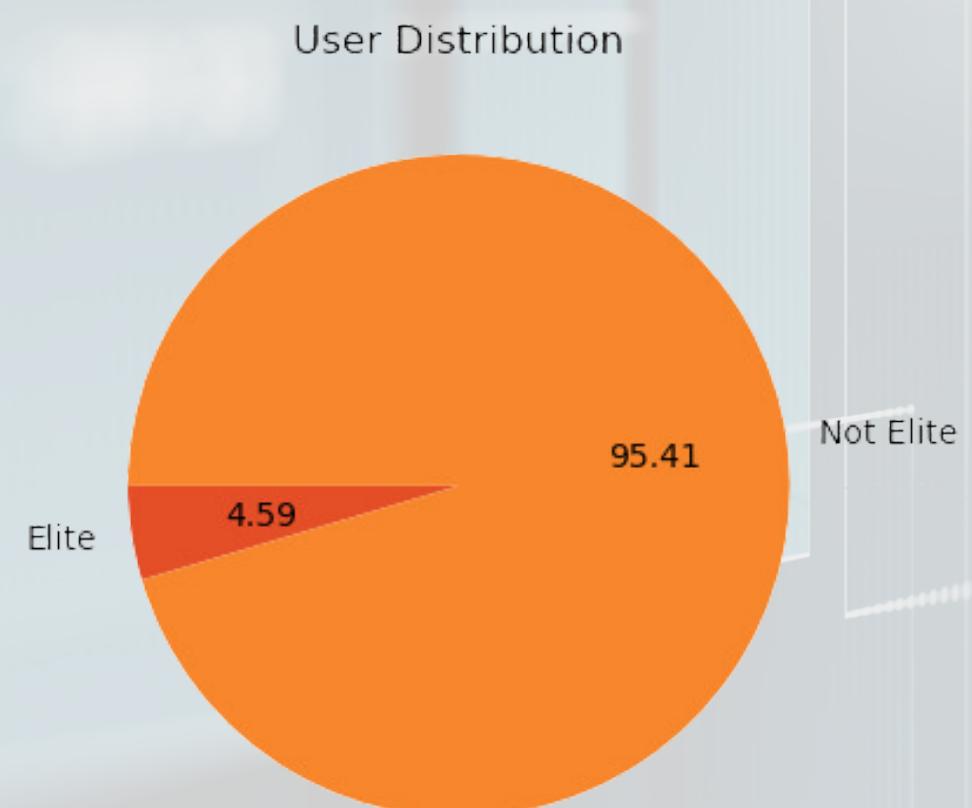
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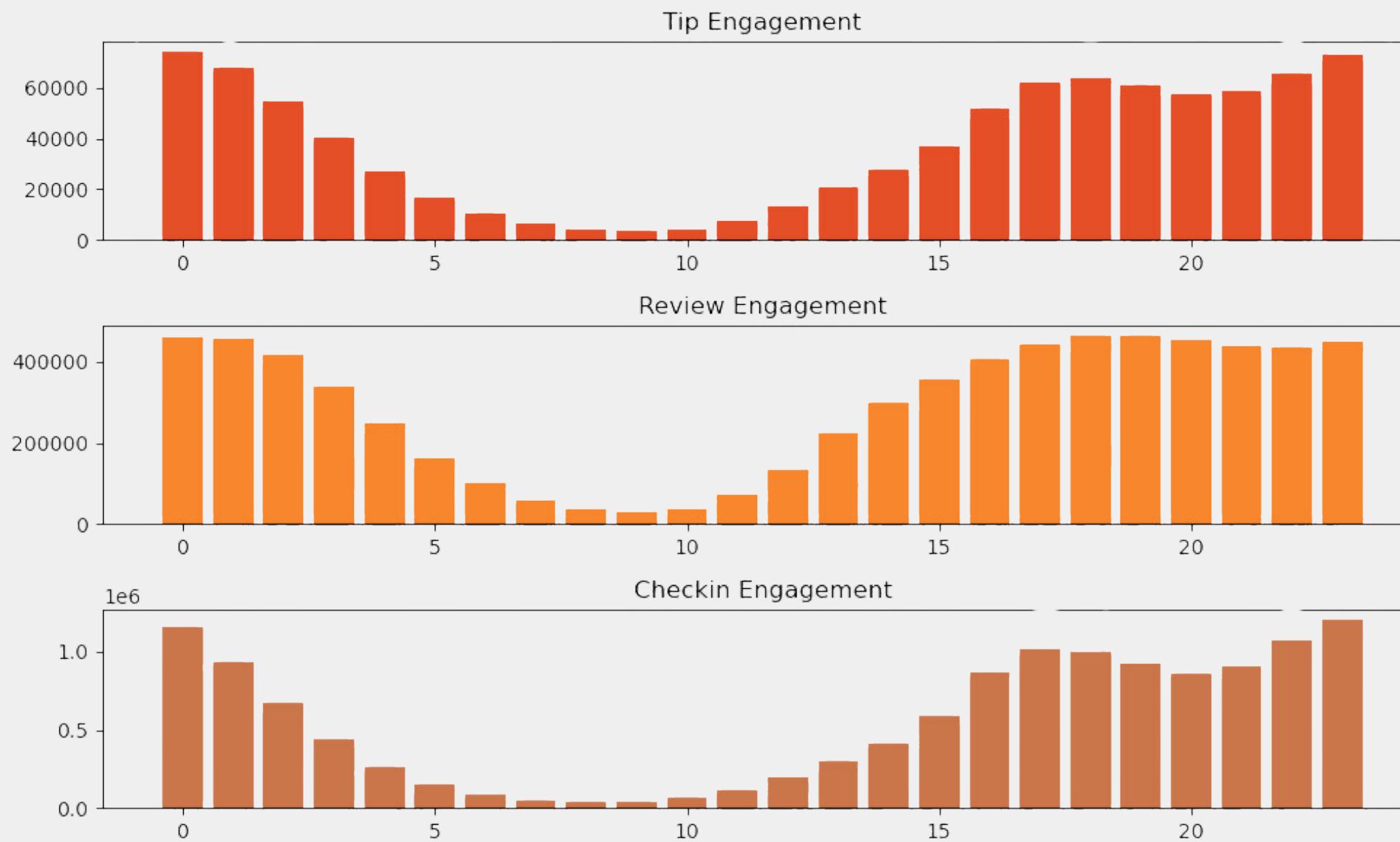


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# Busiest Hours



- The busiest hours for restaurants, based on user engagement, span from 4 pm to 1 am.
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# Recommendations

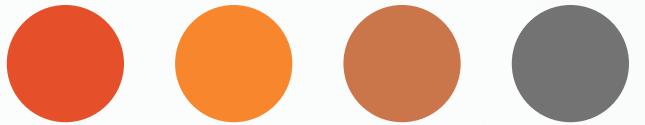
- Utilizing insights from the analysis of various metrics such as user engagement, sentiment of reviews, peak hours, and the impact of elite users, businesses can make informed decisions to drive success.
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- Businesses can adjust their operating hours or introduce special promotions to capitalize on the increased demand during peak hours.
- Less successful businesses may need to focus on strategies to enhance user engagement over time, such as improving service quality, responding to customer feedback.
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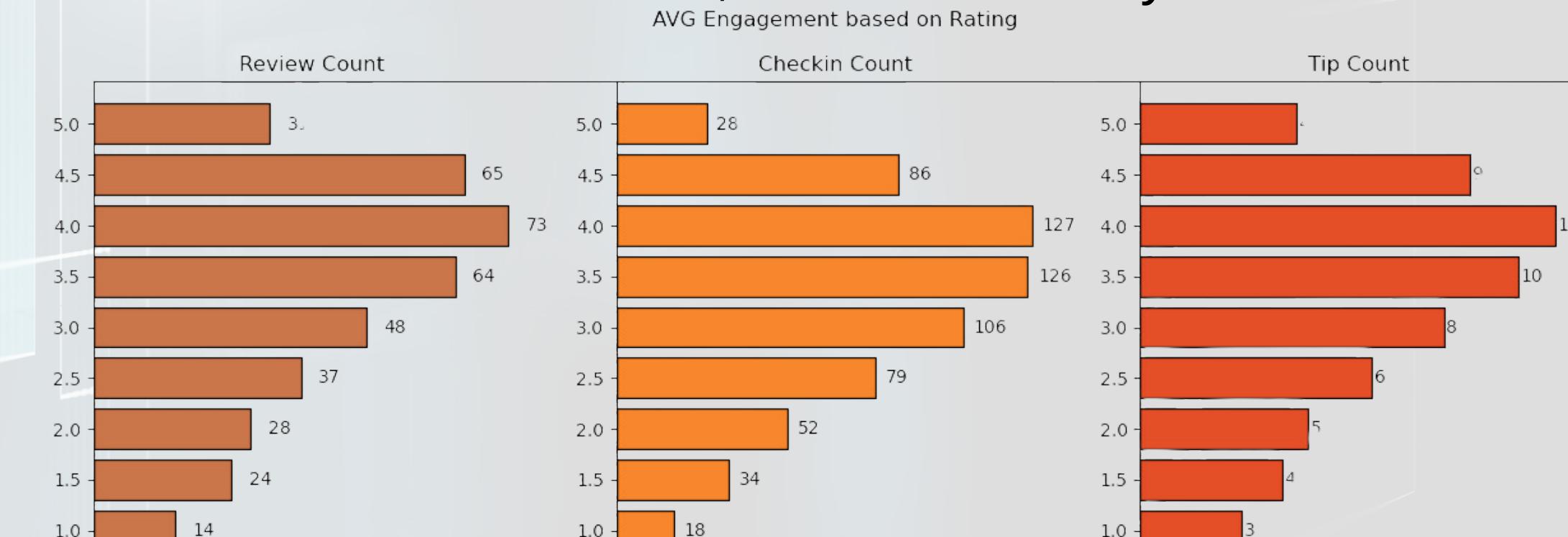
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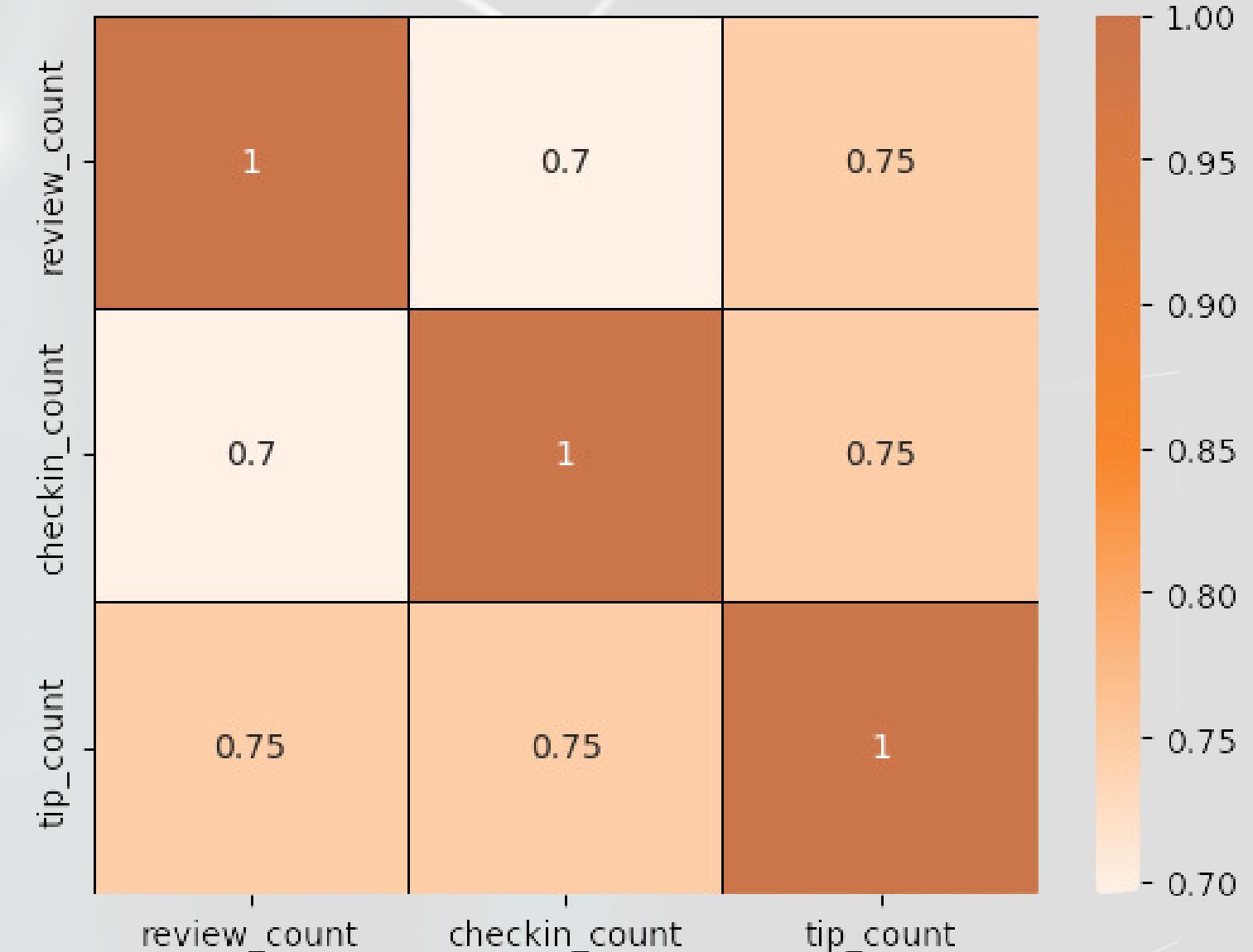
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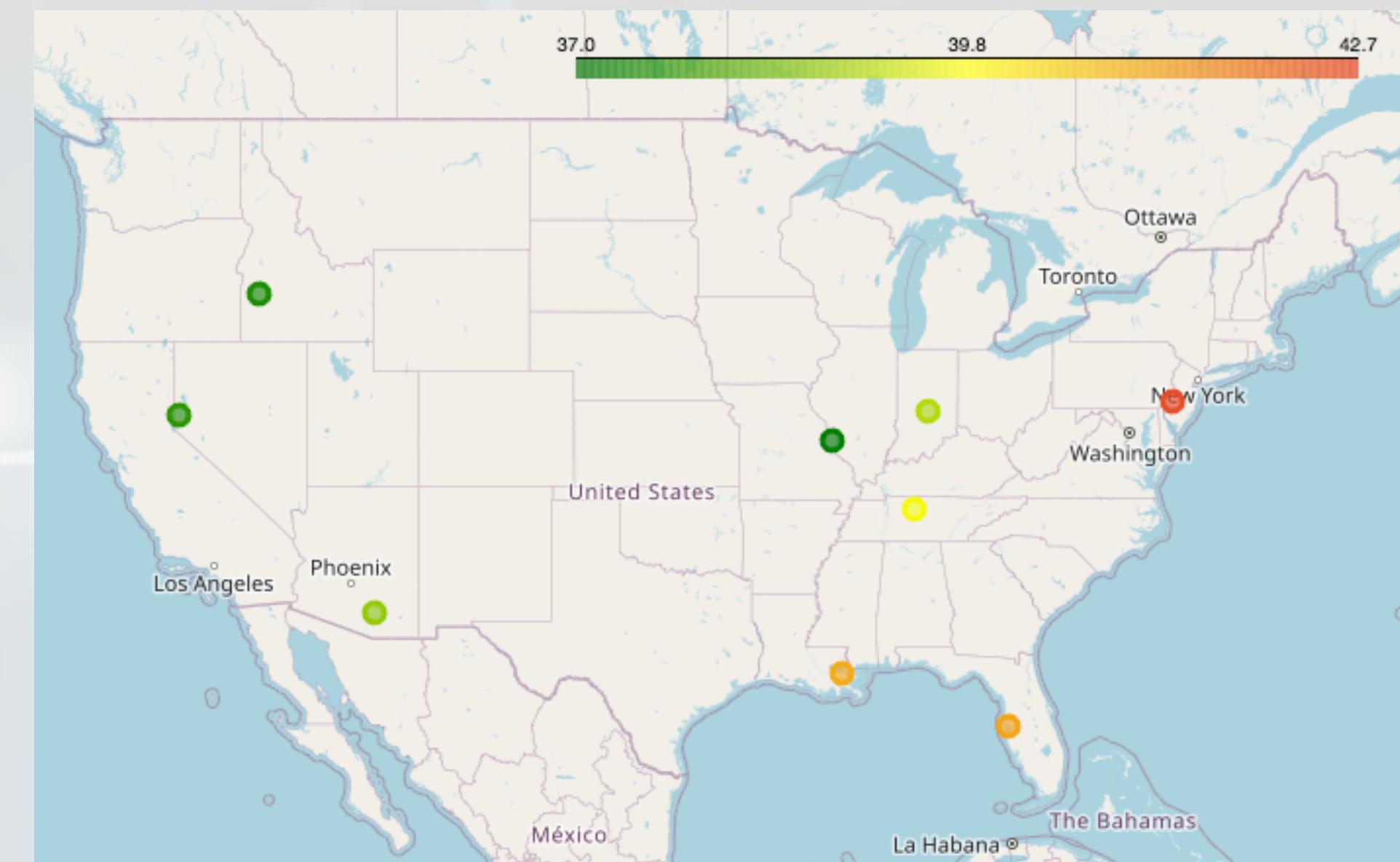
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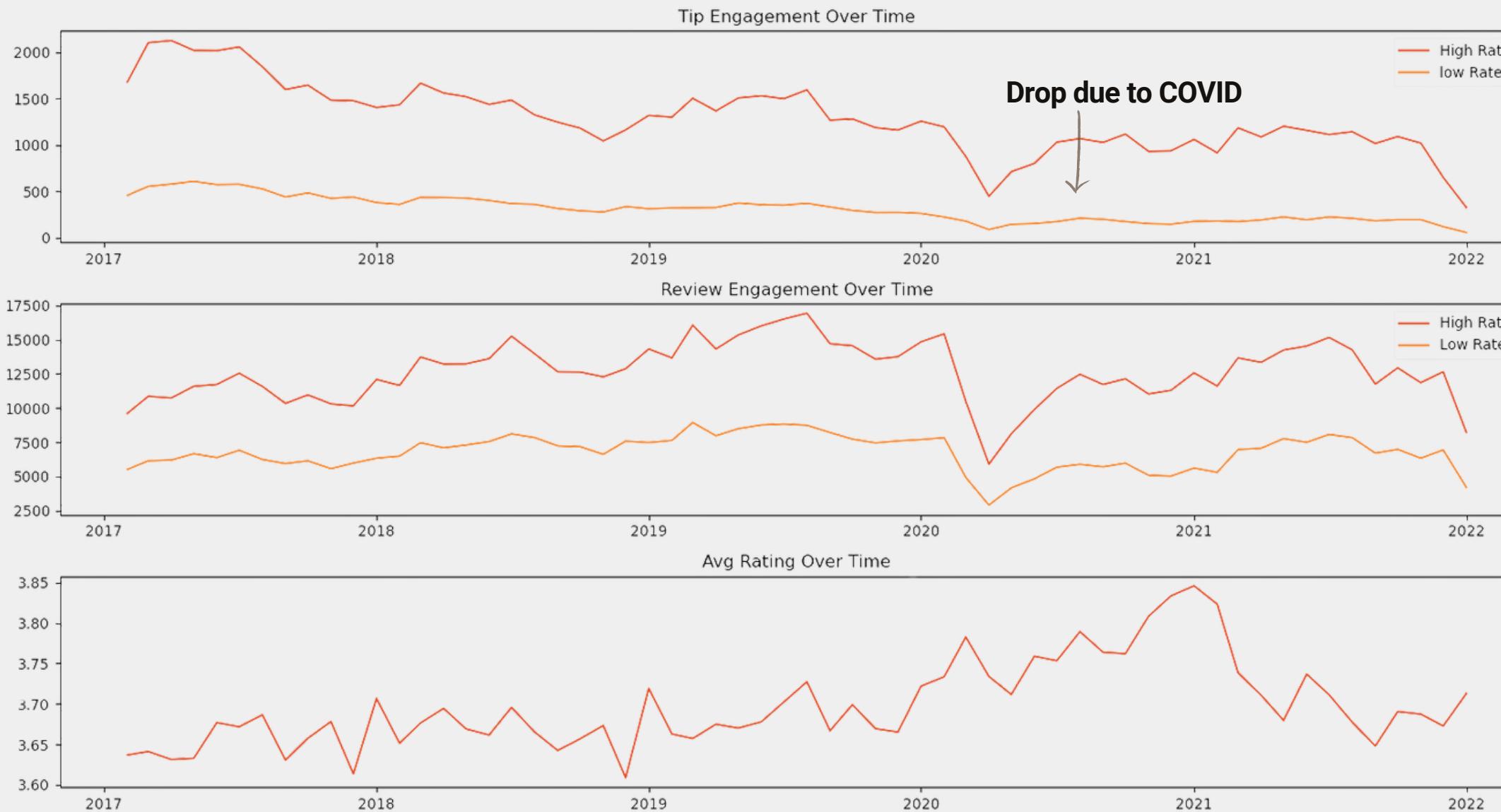
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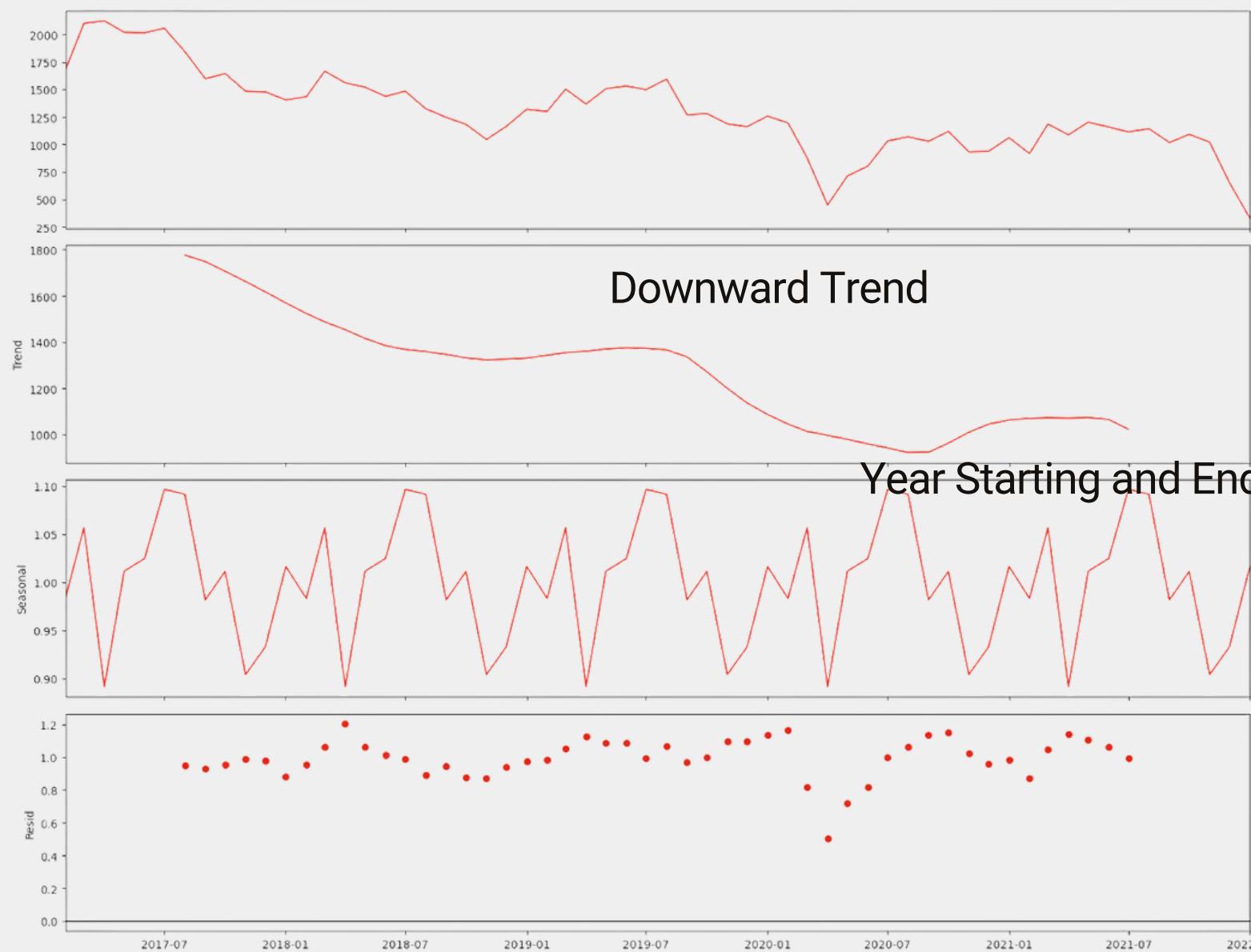
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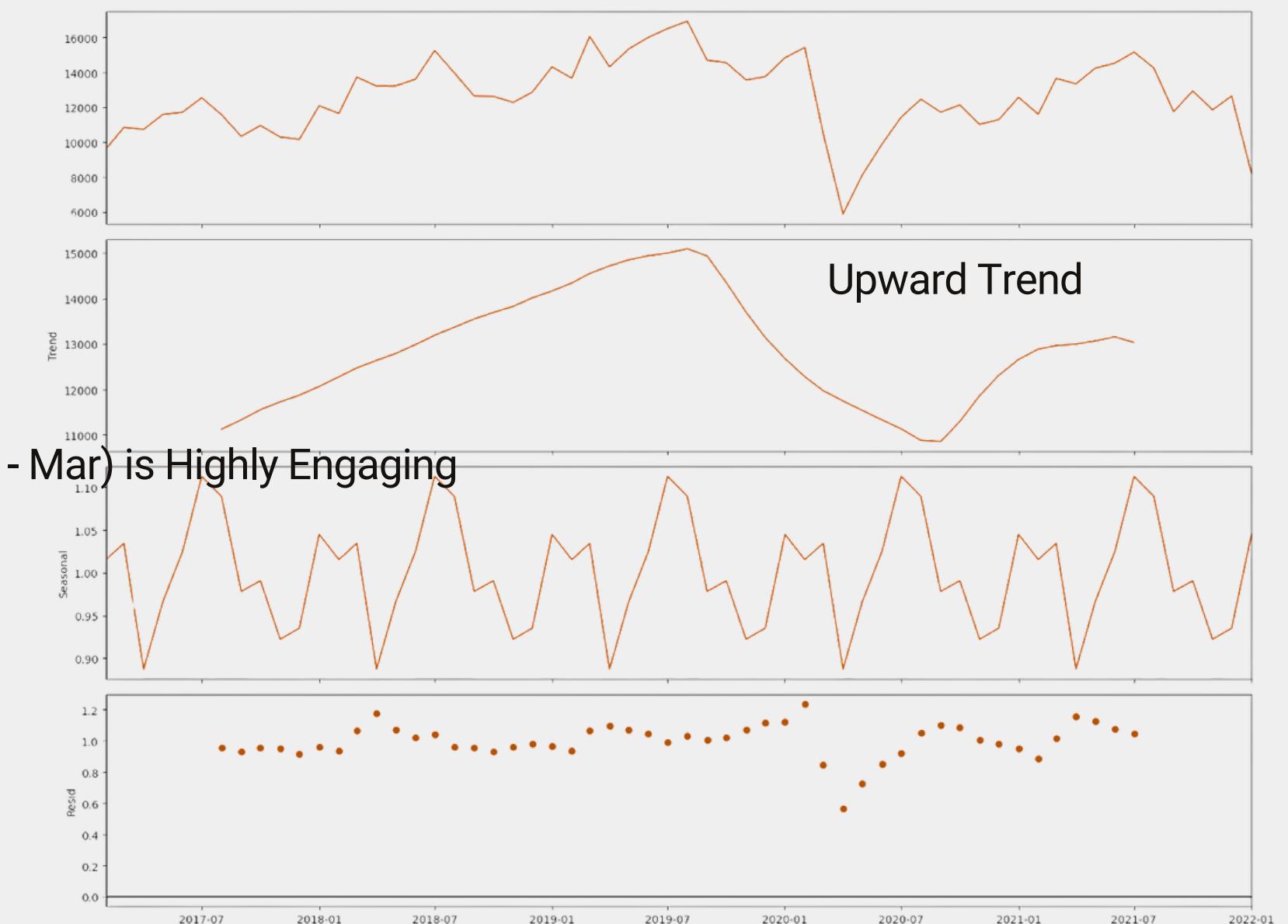
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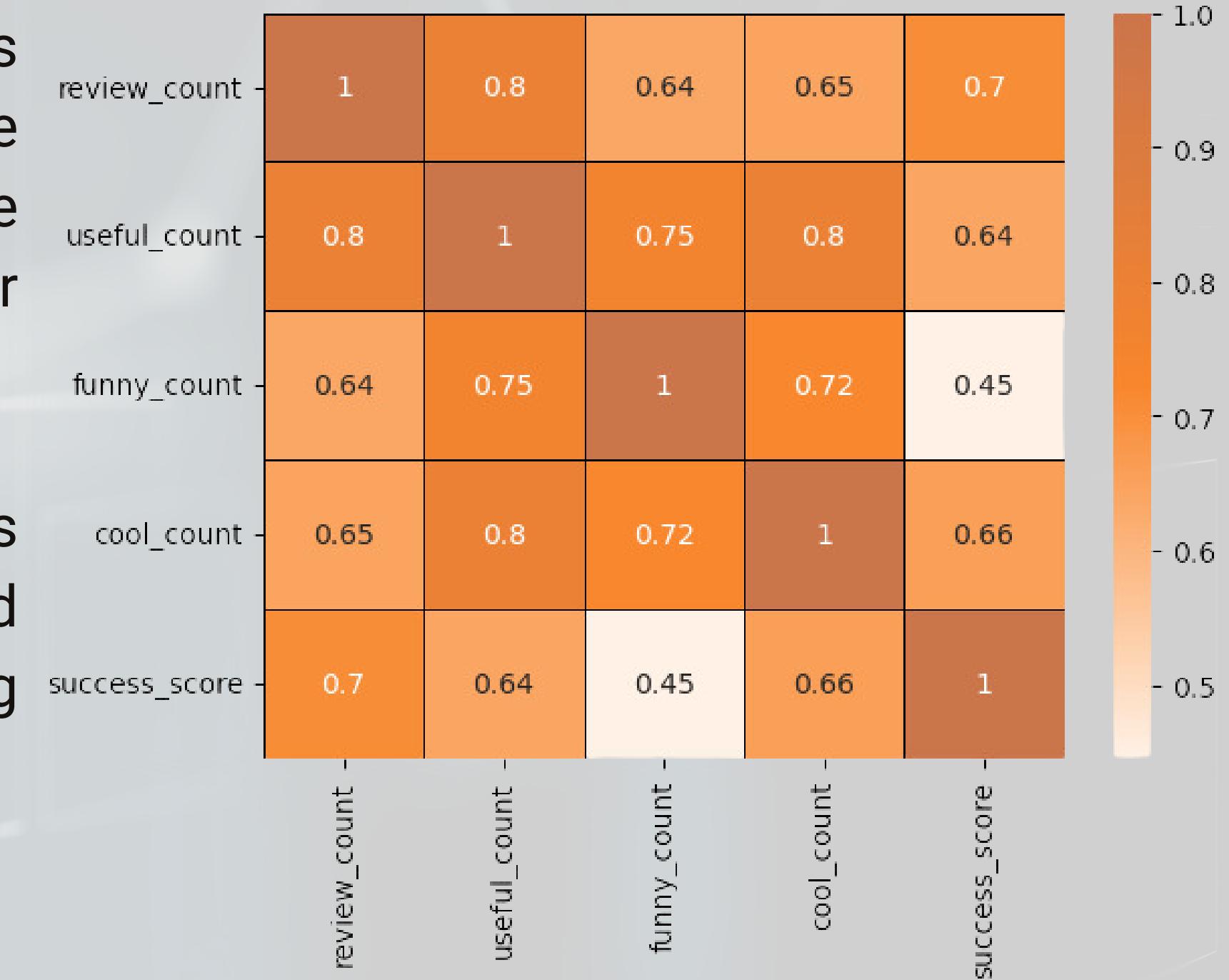


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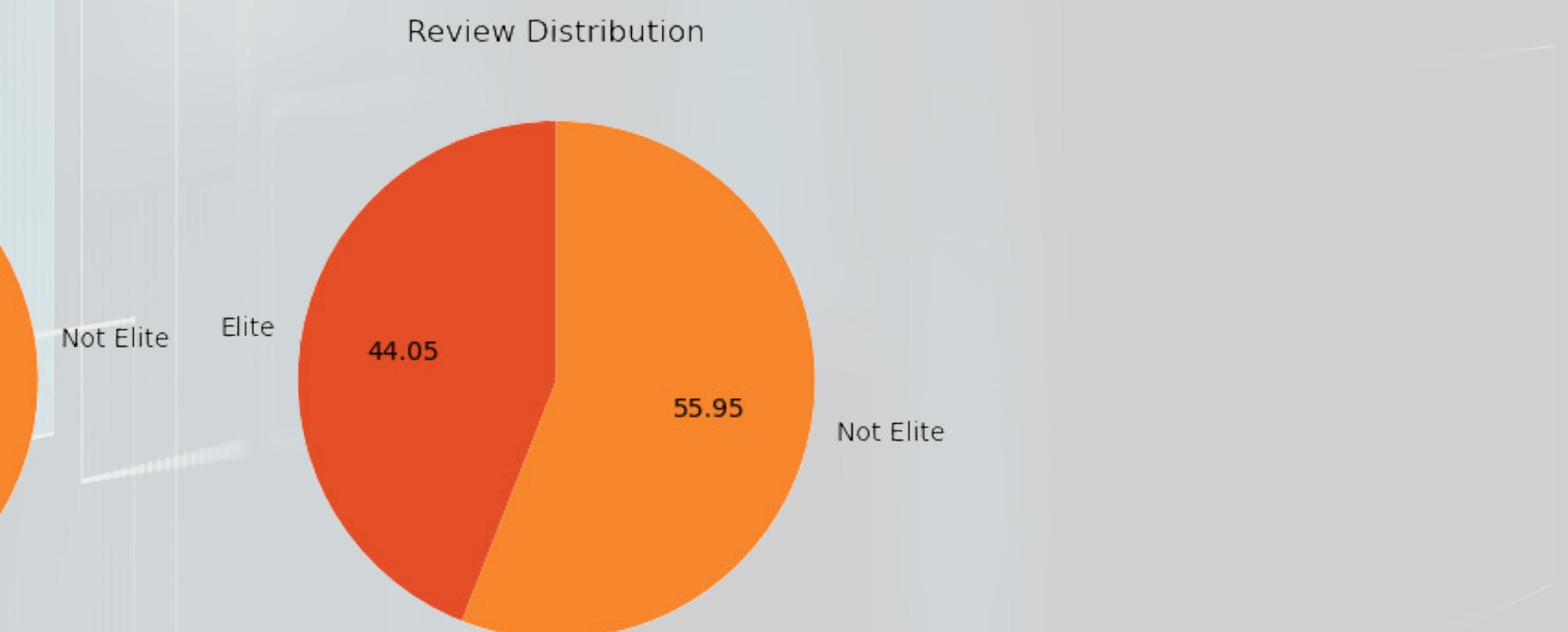
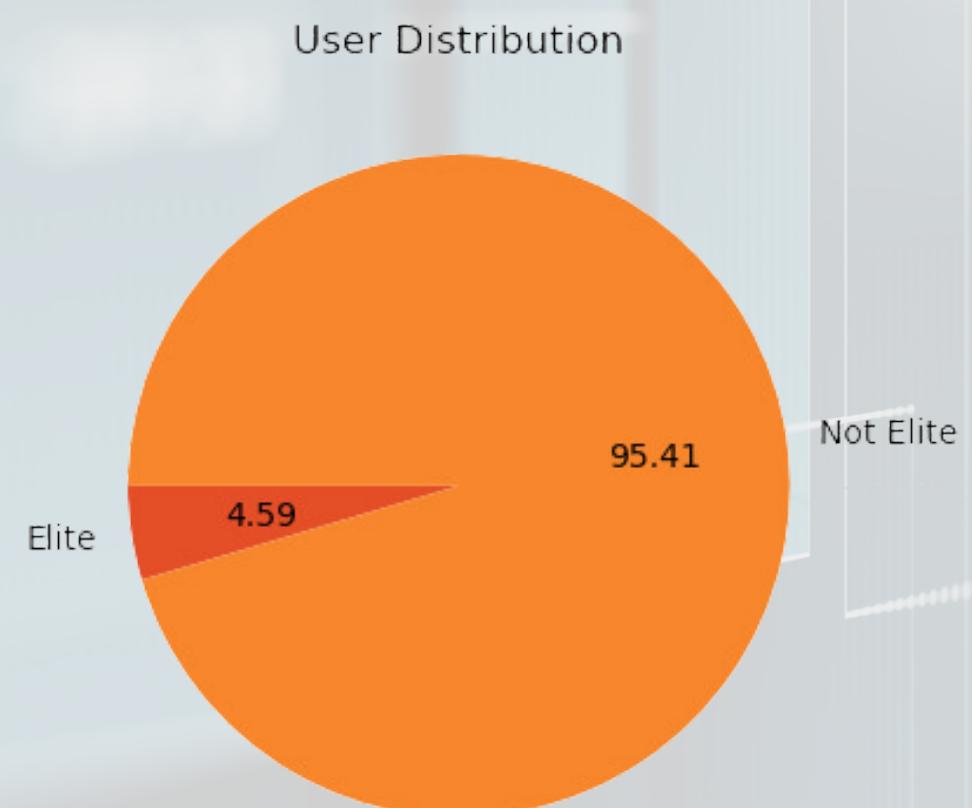
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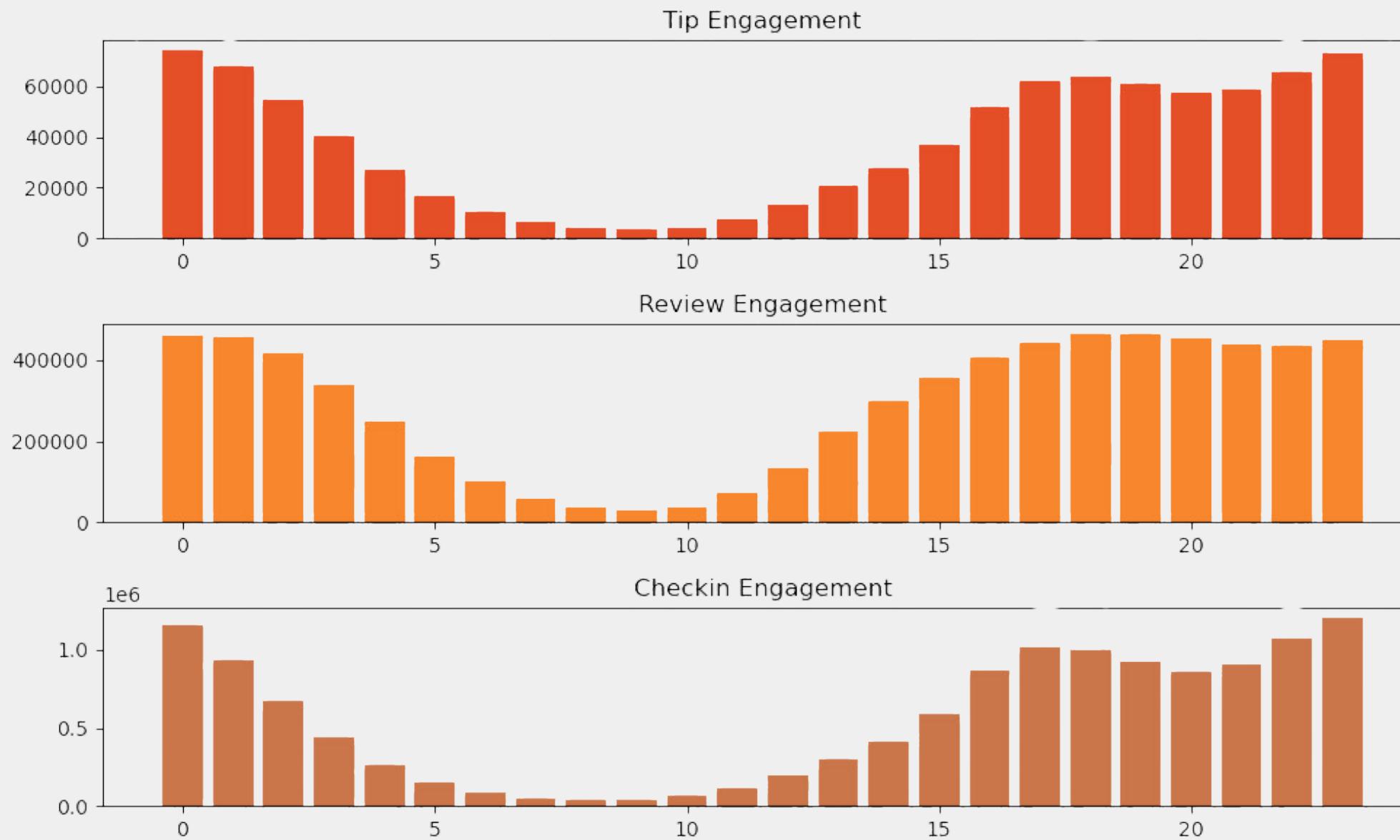


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