Analytics of NER and POS tags distribution

A graph of a number of bars

Description automatically generated with medium confidence

A graph with numbers and a number of tags

Description automatically generated with medium confidence

The analysis of NER tag distribution in positive and negative movie reviews reveals interesting patterns in entity mentions. In positive reviews, PERSON and CARDINAL are the most frequent tags, with over 1100 and 800 mentions, respectively. This high frequency suggests that people (e.g., actors, characters) and numbers (possibly ratings or rankings) are central to positive discussions. DATE and ORG (organizations) also appear prominently, indicating that specific times or companies (like production studios) are often referenced in a positive light.

In negative reviews, CARDINAL and PERSON tags remain significant, but their frequencies are slightly lower compared to positive reviews. DATE and ORG continue to have considerable mentions, underscoring that negative reviews also frequently discuss times and organizations, perhaps focusing on release dates or companies associated with perceived issues. Unique to negative reviews, PRODUCT and FAC tags, though infrequent, suggest mentions of physical objects or facilities (possibly theaters or products related to the movie).

Both sentiments share some rarer tags, like WORK\_OF\_ART, LAW, and LANGUAGE, indicating these aspects are less relevant in general discussions. Overall, the distribution shows that while certain entities are common across sentiments, their prominence varies, reflecting different focal points in positive vs. negative reviews.

A graph of a number of pos tags

Description automatically generated

A graph of a number of pos tags

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The analysis of POS tag distribution in positive and negative reviews reveals key differences in language usage between sentiments. Nouns (NN) are the most frequent in both types of reviews, with over 20,000 instances in positive reviews and 19,000 in negative reviews. This high frequency reflects a strong focus on concrete entities, such as people, places, and things, which are central to discussing movies.

Adjectives (JJ) are also prominent, especially in positive reviews, with over 12,000 instances. This suggests that descriptive language is often used to convey enthusiasm, highlighting favorable qualities. In contrast, adverbs (RB) appear more frequently in negative reviews, reaching over 5,000 instances. This may indicate a tendency to intensify critiques or negative emotions, with adverbs adding emphasis to the tone.

Comparative adjectives (JJR) are notably more common in negative reviews, suggesting that comparisons are often made to express dissatisfaction or disappointment. Negative reviews also use a wider range of verb tenses (VB, VBZ, VBG), reflecting a dynamic tone, as reviewers describe actions, expectations, or experiences that fell short.

Overall, while both sentiments rely on nouns and adjectives, negative reviews display a greater intensity in language, using adverbs and comparisons to underscore critique.