

## Sentiment Analysis of Theatrical Productions

As Broadway - and live entertainment in general - are starting to recover from the hit it took during the peak of COVID-19, it has become more important than ever for theater producers to carefully consider the shows that are being performed in order to maximize profit. Being able to get insight on what makes a show profitable in order to make better informed decisions is crucial, especially when considering producing a new show or reviving an old one. This project aims to use sentiment analysis on show reviews in order to explore what factors influence a show's success and find trends in the Broadway and Off-Broadway scene.

I will be using data that I scraped from the internet, including Broadway grosses by week from 1985 - 2023 from Playbill and reviews from critics of Broadway and Off-Broadway shows from New York Theatre Guide. I will examine the reviews' overall sentiment and see how the sentiment score compares to the critic's rating and see if there are any commonalities between shows with similar sentiments. Using a predetermined list of words containing production aspects (costumes, lighting, acting, writing, sound, etc) I'll extract sentences from the reviews to see what critics are - or are not - liking and look at how that affects their review score. With the data we have from Playbill, we can see if there are any correlations between a show's ticket price, weekly gross, or attendance capacity. From these observations we can find out what aspects of a show make it more likely to become highly rated.