

# Billboard to Grammy

**Billboard**  
**HOT 100**




# Can weeks on the Billboard Top 100, peak position on the chart, gender, or time at the top spot predict a Grammy win for a song?

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Each week, the Billboard Top 100 ranks the best songs from multiple genres into a published list. Songs float on and off, with only a few every taking the top spot. However, the top spot doesn't guarantee more than a moment of recognition. Using Top 100 Data and Grammy Winners from the past 20 years, our team will analyze datasets to determine if a Grammy winner can be determined based on the Billboard Top 100.

The datasets to be used include weekly top 100 songs from 1999 through 2018 and Grammy winners from 1999 through 2018. We will use logistic regression and machine learning to determine if winners can be predicted based on Billboard information.

Our team selected this topic during the recent Grammy award show on March 14, 2021. The inspiration came from the randomness of the winners, as several songs beat others which our group thought to be popular. Additionally, music brings the world together, and during these times, we can all use a little more music and song.





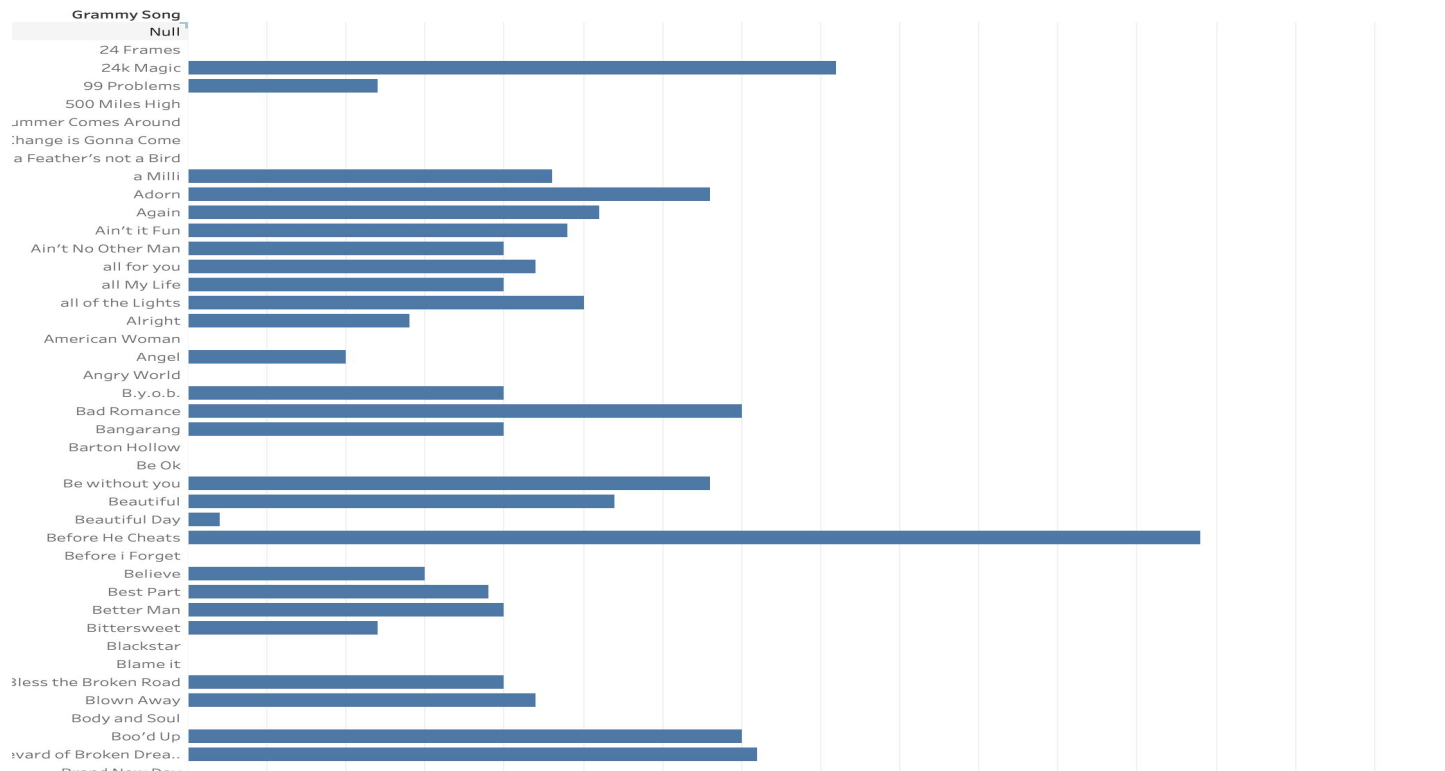
# TEAM



Data							
Name	GrammyYear	Artist	Grammy Award	Weekly.average	Peak.position	Weeks.on.chart	Features
THIS IS AMERICA	2018	Childish Gambino	3	38.647059	1.0	17.0	NaN
ELECTRICITY	2018	Silk City & Dua Lipa Featuring Diplo & Mark Ronson	1	85.800000	62.0	10.0	NaN
BUBBLIN	2018	Anderson Paak	1	NaN	NaN	NaN	NaN
BEST PART	2018	He.r. Featuring Daniel Caesar	1	85.315789	75.0	19.0	H.E.R.
MASSEDUCTION	2018	St Vincent	1	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...	...
NOT RIGHT BUT IT'S OKAY	1999	Whitney Houston	1	92.000000	NaN	NaN	NaN
YOUR LIGHTS ON	1999	santana featuring Everlast	1	NaN	NaN	NaN	NaN
MY NAME IS	1999	Eminem	1	NaN	NaN	NaN	NaN
MARIA MARIA	1999	Santana	1	10.500000	1.0	26.0	The Product G&B
BRAND NEW DAY	1999	Sting	1	NaN	NaN	NaN	NaN

# Weeks on Chart Histogram

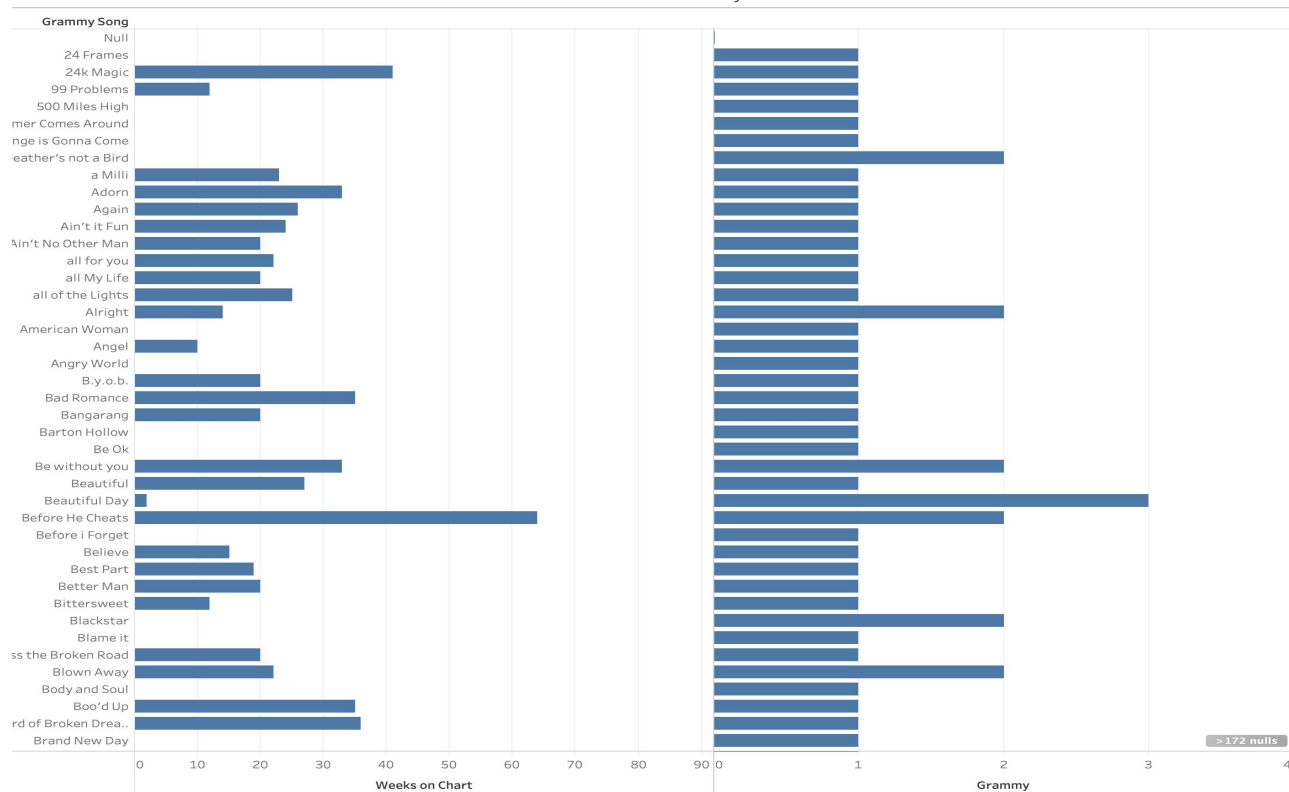
Grammy Songs Vs Weeks on Chart





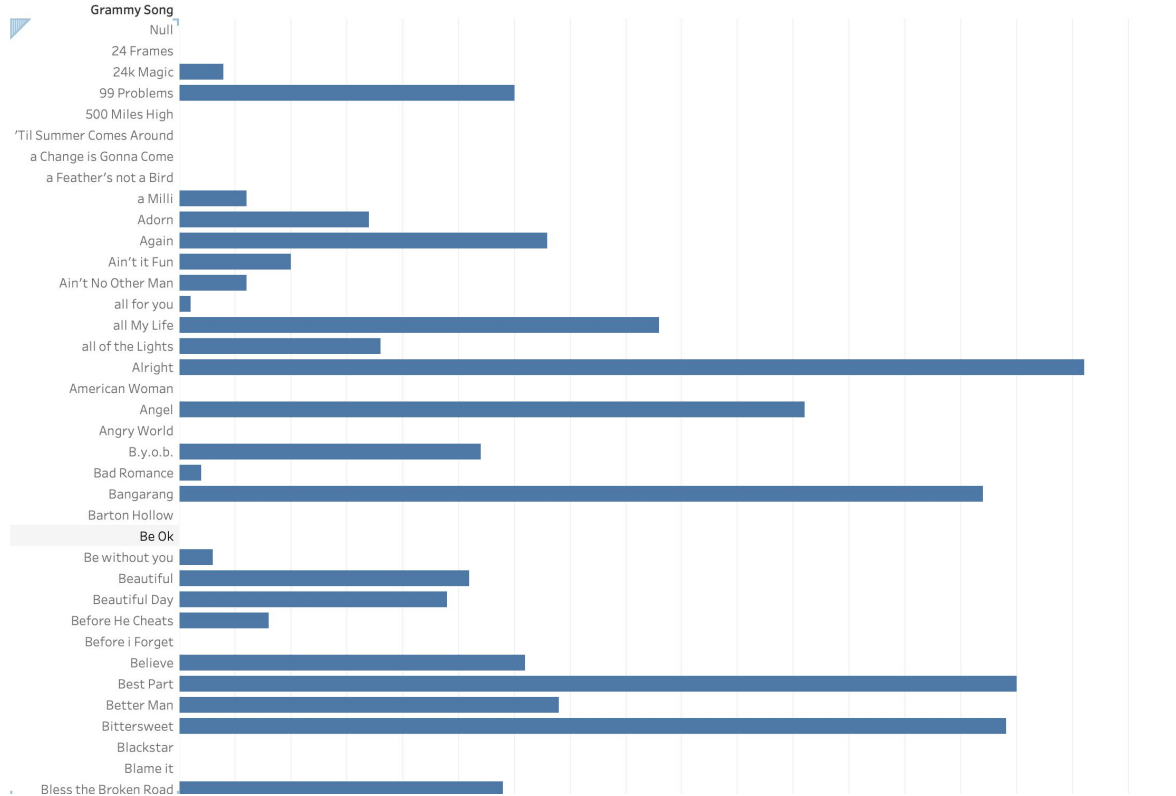
# Weeks on Chart (Correlation)

Weeks on Chart and Grammy Awards

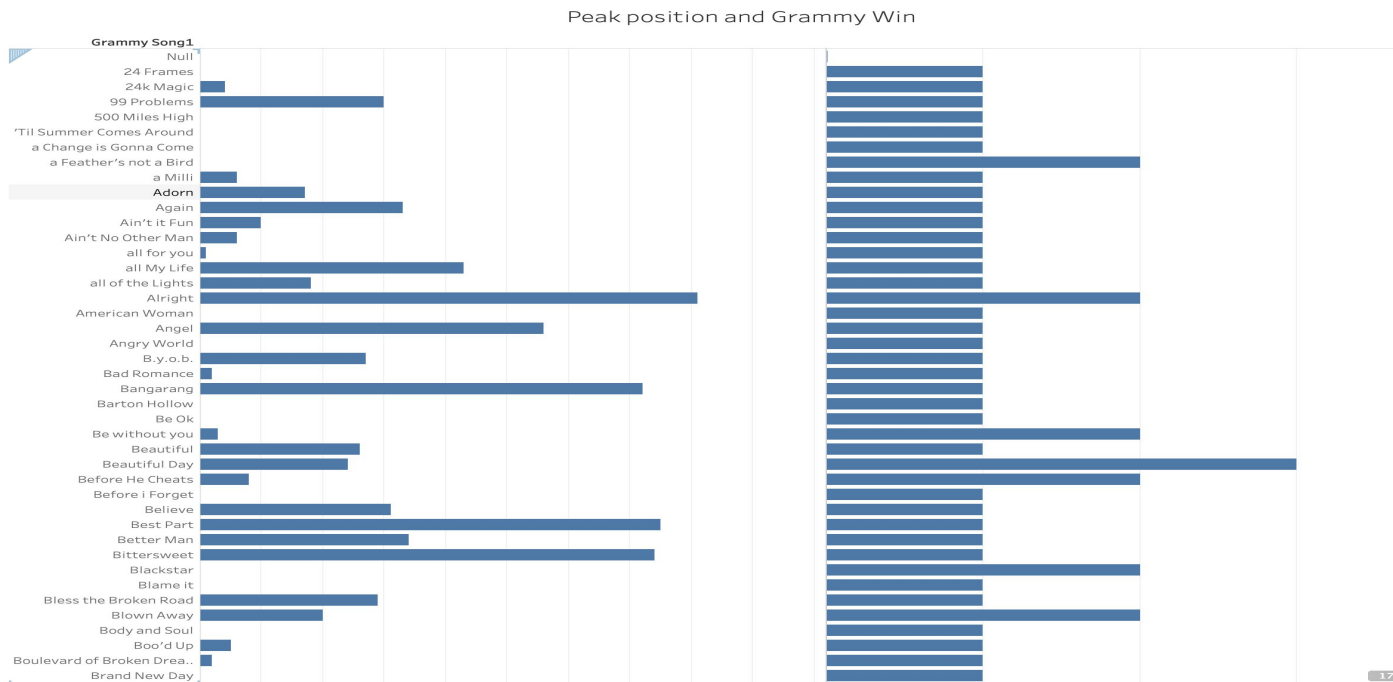


# Peak on Chart (Histogram)

grammy songs Vs Peak on Position



# Peak on Chart Correlation





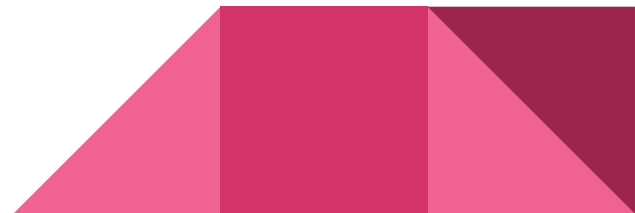
# Age of Album (Histogram)



# Age of Album Correlation



# Machine Learning - Grammy Prediction



# Conclusion from Model



# Null Hypothesis

What other factors could contribute to winning a Grammy?



# Next Steps

