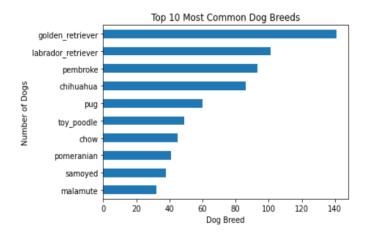
## Analysis of WeRateDogs™

WeRateDogs<sup>TM</sup> is a twitter account that tweets out pictures of (mostly) dogs with their associated "ratings". Seems simple enough though, WeRateDogs<sup>TM</sup> has what one might call a different approach to a normal judge. Almost all of this Twitter handles' ratings are over 10/10. Why are so many dogs so "over-rated"? There could be plenty of reasons, but WeRateDogs<sup>TM</sup> does have at least one reason; "they're good dogs Brent". This has brought up the idea to generally look into the WeRateDogs<sup>TM</sup> tweets and gain insights on the.

## **About the Data**

To analyse the tweets from WeRateDogs<sup>TM</sup>, we have used three different source. The first source is an archive of the past tweets from <a href="@dog\_rates">@dog\_rates</a> provided via a CSV from Udacity. The second source is from the Twitter API used to retrieve more information about the tweets like number of likes for each tweet. The third data source provides us the predicted dog breed in each tweet's image programmatically determined from a neural network. Udacity also provided this. This third source is particularly important, as it was not determined how accurate the predictions were. Combining this data from these sources, we ended up analysing 1905 tweets from WeRateDogs<sup>TM</sup>. These tweets were used to analyse the relationship between retweets and favorites amongst the different "dog stage" (floofer, pupper, doggo, etc.), the most common dog breeds and stages and the highest rated dog.



A neural network was used to identify the dog breeds. The graph on the left shows the top 10 breeds and the number of dogs in each of them. 928 dogs were identified overall by the neural network with a confidence above 50% and 468 of these are in the top 10.

The most common breed is the Golden Retriever followed by the Labrador Retriever and then the Pembroke

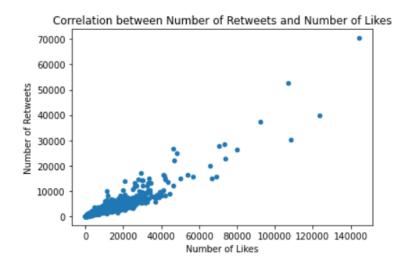


This is Atticus. He's quite simply America af. 1776/10



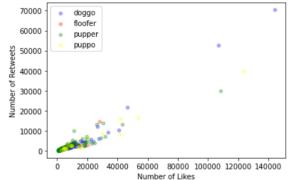
4:00 PM · Jul 4, 2016 · TweetDeck

On the left, you will see Atticus. Our highest rated dog with a 1776/10 rating. We see him donning the red, white and blue of the USA and even being called "American af". Well 1776 is celebrated as the official beginning of the country, the United States of America. Therefore, we now understand the reasoning behind his rating. Does it make sense? Well I wouldn't think so but remember, "they're good dogs Brent."

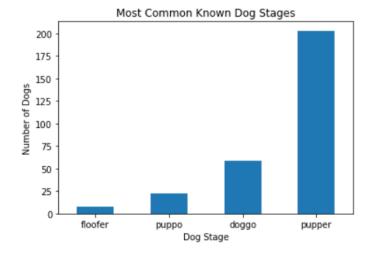


With a correlation coefficient of 0.92, there is a strong positive correlation between the number of likes and the number of retweets. This is further proven with the scatterplot on the left. There is a strong positive trend with some values having high above 60000 likes and 30000 retweets. The highest value for both features are on the same tweet with 70411 retweets and 144275 likes

Correlation between Number of Retweets and Number of Likes across Dog Stages



Excluding dogs with unknown dog stages (where dogs\_stage in None), we plot the same scatterplot as the one above and notice that puppers are the most common dog stage given the high prevalence of green in the plot. However, doggos generally do better at getting likes and retweets



Confirmation that puppers are the most common dog stage