Act Report

Insights & Visualisation

1. Dataset overview
2. The top 10 dog breed rated in Twitter.
3. Which dog stage has the highest average rating, retweet count and favorite count?
4. How good the neural network is for the image prediction?
5. Which jpg_url has the highest favorite count/retweet count?
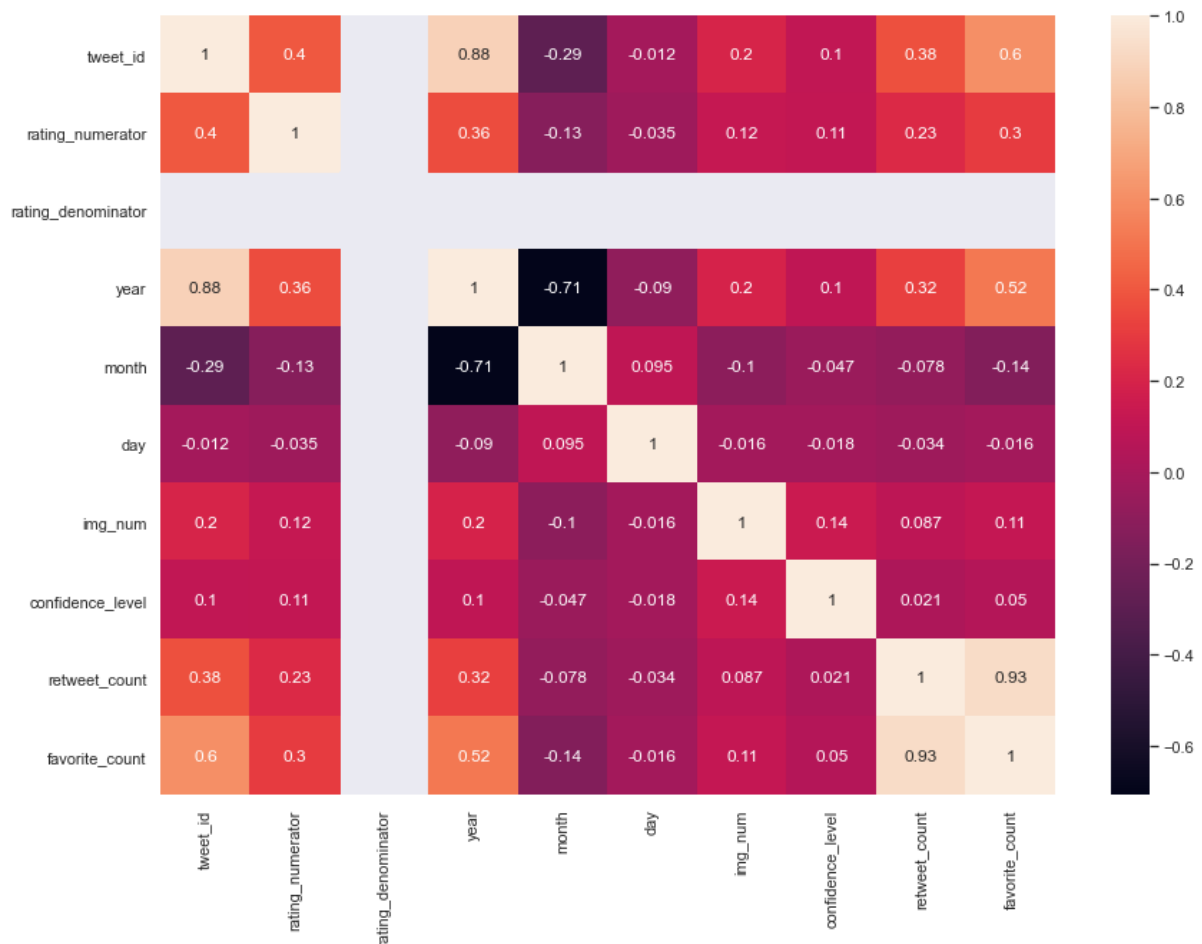
Overview

Correlation Heatmap

Figure 1 : Heatmap

From above heatmap, we can see that retweet_count and favorite_count is highly postive correlated (0.93).
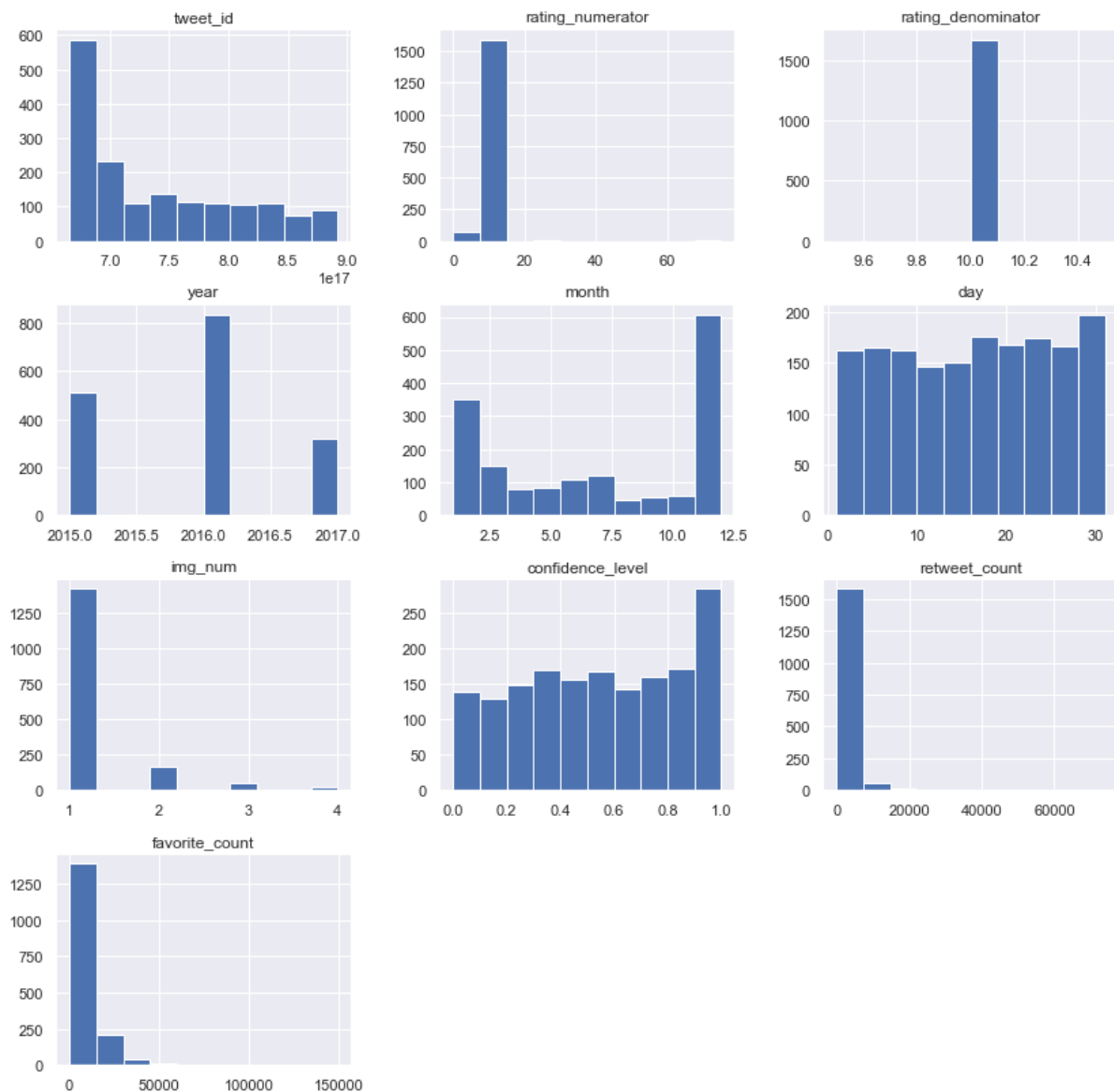
Histogram

Figure 2 : Histogram

From above histogram, we can observe that:

1. Year 2016 has the highest Tweets on WeRateDog, compared to year 2017 and 2015.
2. Furthermore, most of the tweets are posted in December.
3. Most of the tweets have only one image.
4. The prediction for the dog breed has accuracy of 100% for over 250 tweets.
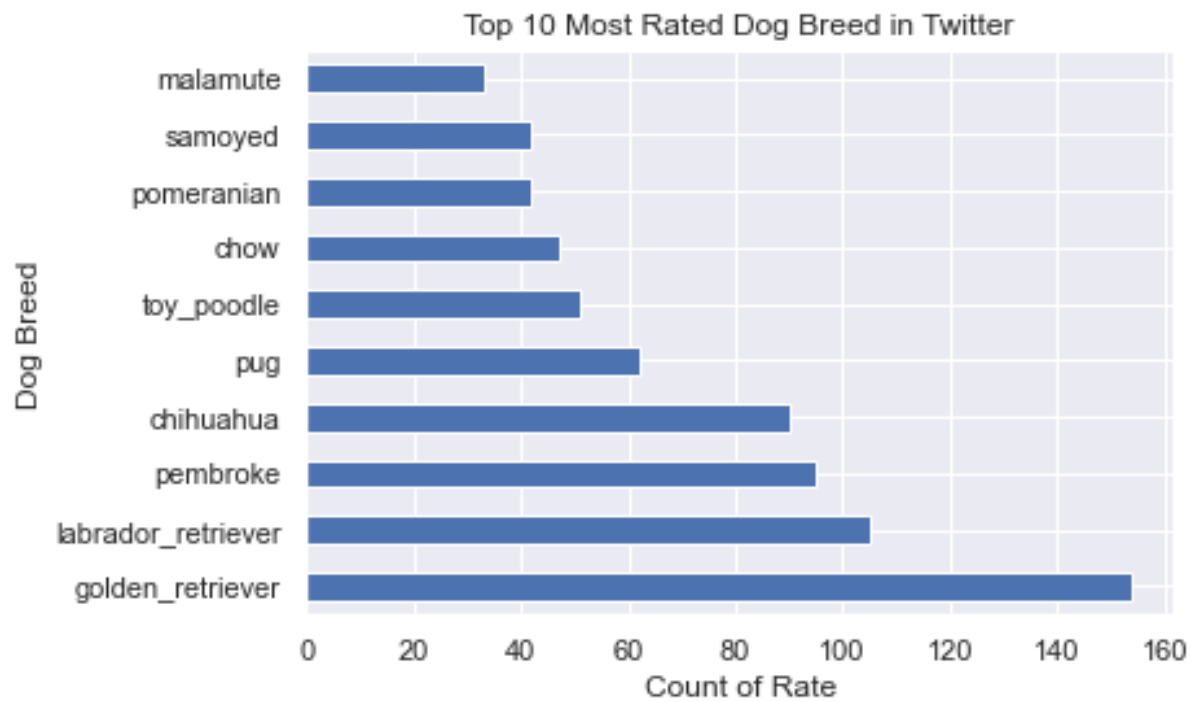
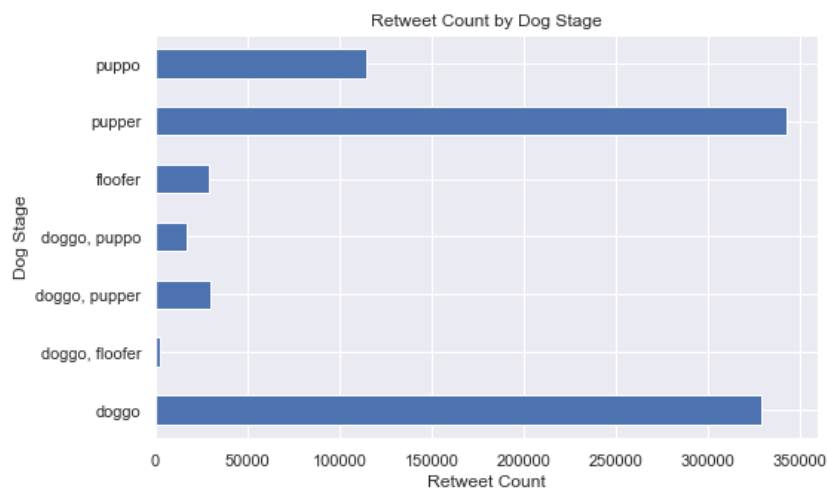**Top 10 Most Rated Dog Breed in Twitter**

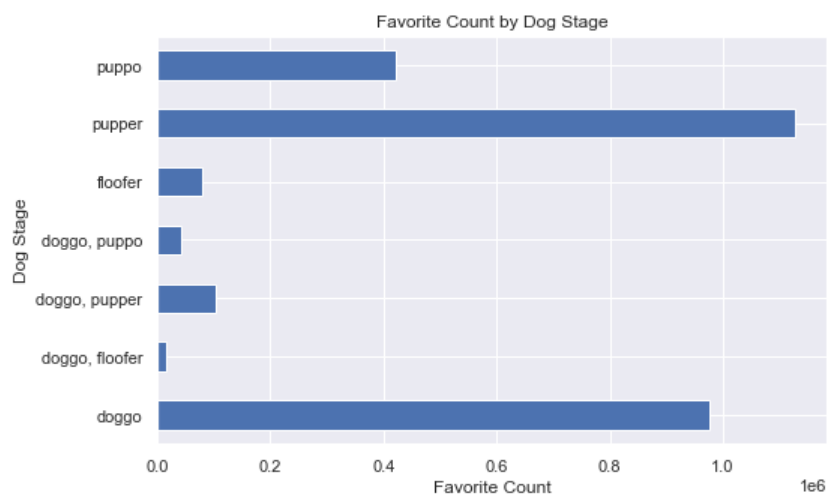*Figure 3 :Bar Chart of Top 10 Most Rated Dog Breed in Twitter*

From the above, we can observe that the most rated dog breed is Golden Retriever, followed by Labrador Retriver and Pembroke at the third place.

Which dog stage has the highest retweet count and favorite count?

Figure 4: Bar Chart of Retweet Count by Dog Stage

Refer to graph above, we can see that pupper has the most retweet count (342,704 retweets) followed by doggo (329,031 retweets) and puppo (114,963 retweets).

Figure 4: Bar Chart of Favorite Count by Dog Stage

Similar as retweet count, we can see that pupper has the most favorite count (1,127,497 favorite) followed by doggo (975,836 favorite) and puppo (423,046 favorite).

How good the neural network is for the image prediction?

Table 1: Top 10 Dog Breed with the Highest Confidence Level

Dog Breed	Average Confidence Level
Komondor	0.972531
Keeshond	0.844431
Bull Mastiff	0.815618
Brittany Spaniel	0.775591
Bernese Mountain Dog	0.766685
Samoyed	0.717440
Blenheim Spaniel	0.699588
German Shepherd	0.694426
Black and Tan Coonhound	0.692000
Pomeranian	0.691647

The image prediction by neural network is exceptionally good at identifying Komondor, with the highest average confidence level at 97%. Followed by Keeshond, with average confidence level at 84% and Bull Mastiff which the average confidence level at 81%.

Table 2: Bottom 10 Dog Breed with the Lowest Confidence Level

Dog Breed	Average Confidence Level
Irish Wolfhound	0.063078
Bouvier des Flandres	0.082610
Scottish Deerhound	0.143519
Norwich Terrier	0.246893
Cairn	0.262196
Scotch Terrier	0.267979
Standard Poodle	0.272770
Bedlington Terrier	0.286043
Mexican Hairless	0.300638
Groenendael	0.302625

However, the image prediction is not that good at predicting the image for Irish Wolfhound and Bouvier des Flandres. The average confidence level for these two breed is not more than 10%.

Which tweet has the highest favorite count and retweet count?

The tweet_id 744234799360020481 has the highest retweet (73,872) and favorite count (149,796). The rating is at 13/10.

The description of this tweet: Here's a doggo realizing you can stand in a pool. 13/10 enlightened af (vid by Tina Conrad)

Feel free to check out this funny video! Link below:

https://twitter.com/dog_rates/status/744234799360020481