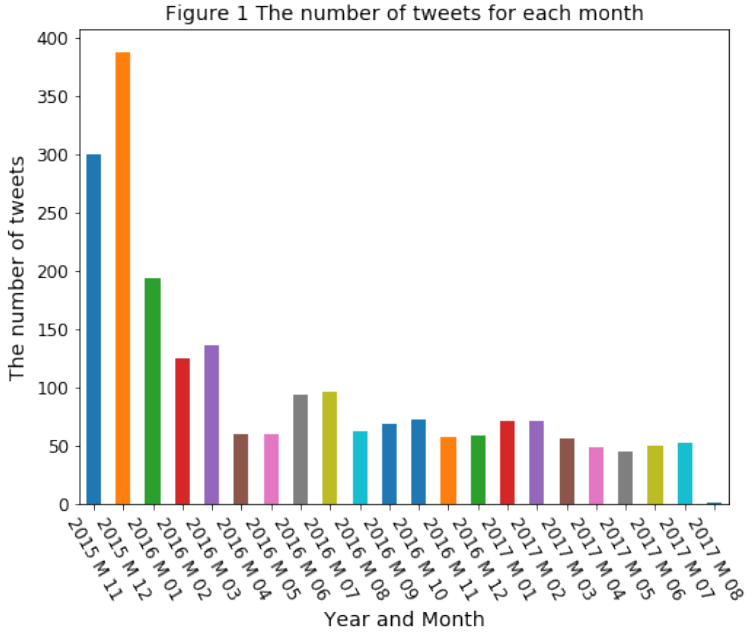
Data analysis and visualization for WeRateDogs Twitter

I gathered data from three different sources for the WeRateDogs Twitter, and the data was then carefully cleaned for the purpose of this analysis.

1. How many original tweets were posted in each month?

Figure 1 shows the number of original tweets in each month. It can be seen that more tweets were posted before April 2016. The tweets number are relatively stable with approximately 50-80 per month from April 2016.

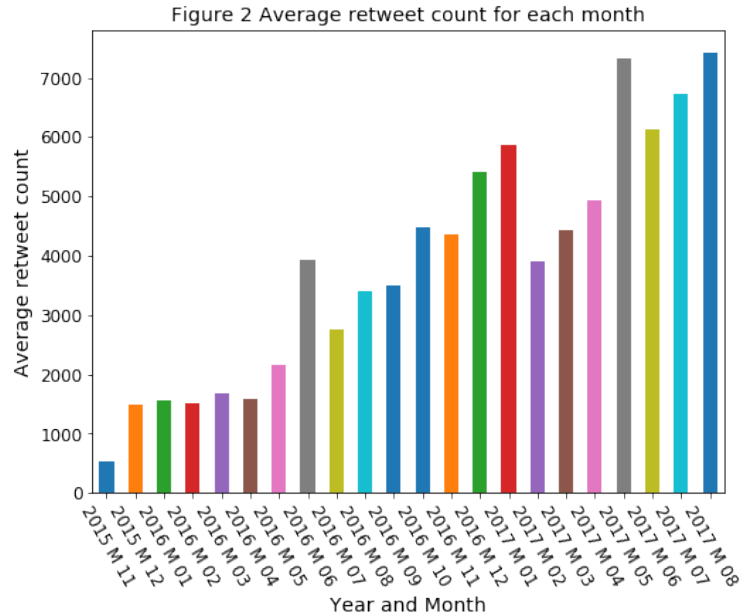
Figure 1 The number of tweets for each month



2. How many times each tweet was retweeted on average in each month?

Figure 2 shows the average retweet count for each tweet in each month. It shows significant increase for the average retweet count over time, which may indicate that the WeRateDogs Twitter is becoming more and more popular.

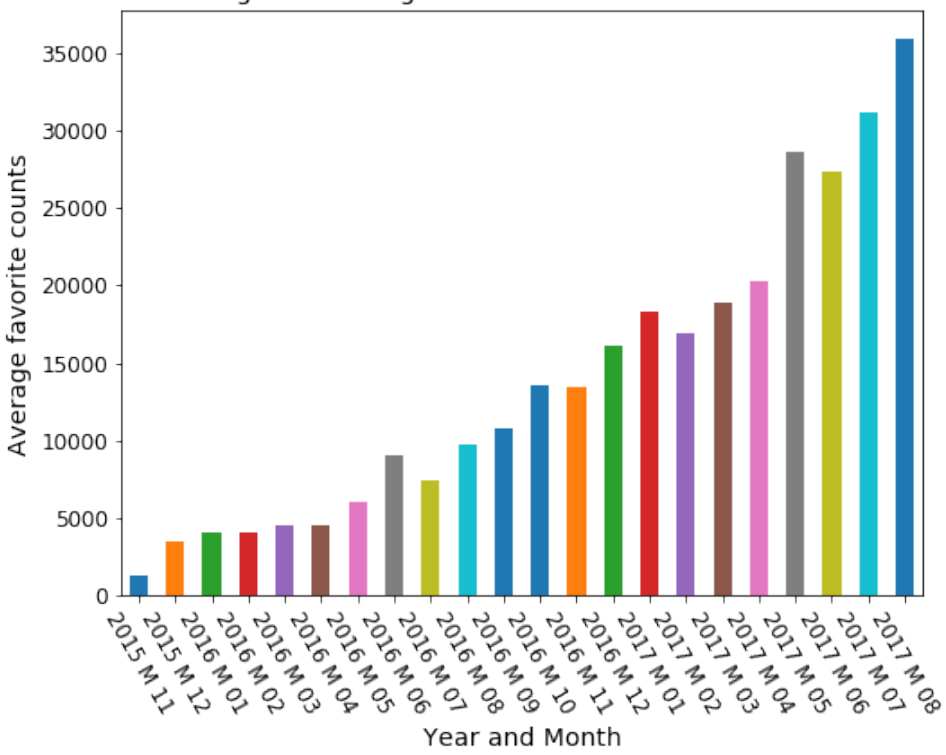
Figure 2 Average retweet count for each month



3. How many favourites each tweet got on average in each month?

Figure 3 shows the average favourites count for each tweet in each month. It shows significant increase for the average favourites count with time, which may indicate that the WeRateDogs Twitter is becoming more and more popular.

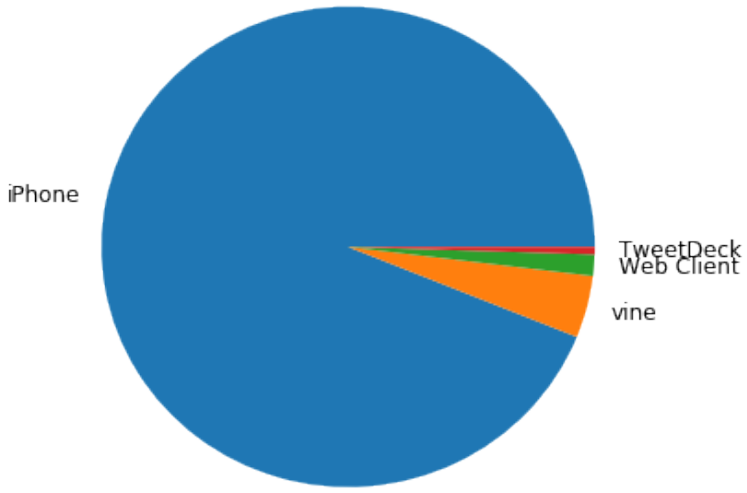
Figure 3 Average favorite counts for each month



4. What are the main sources of tweets?

Figure 4 shows that the vast majority of the tweets were posted through iPhone. The second largest source is vine.

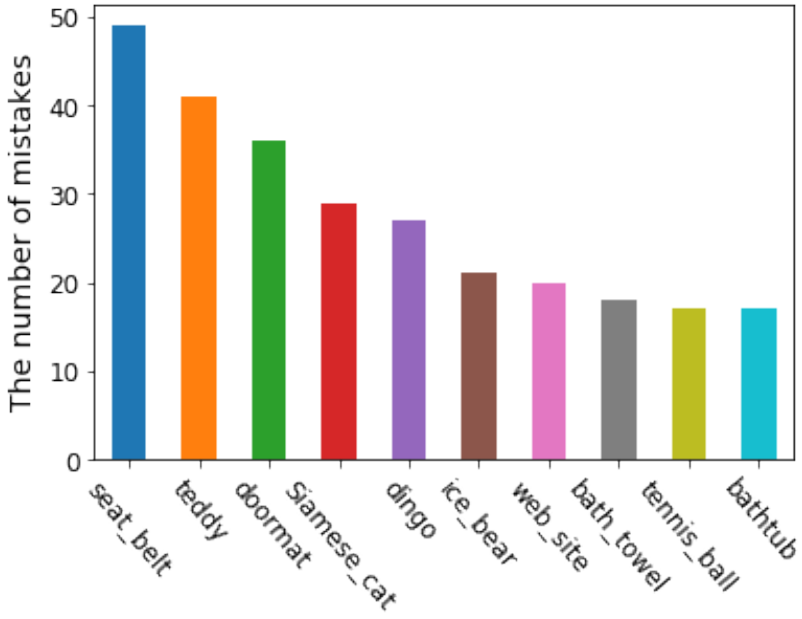
Figure 4 The source of tweets



5. When the neural network makes mistakes (believe the image is not a dog), what usually the neural network thinks the image is?

Figure 5 shows the top ten common guesses of the neural network on dog images. The three most common guesses are seat belt, teddy and doormat. This is interesting, since they do not look like dogs at all!

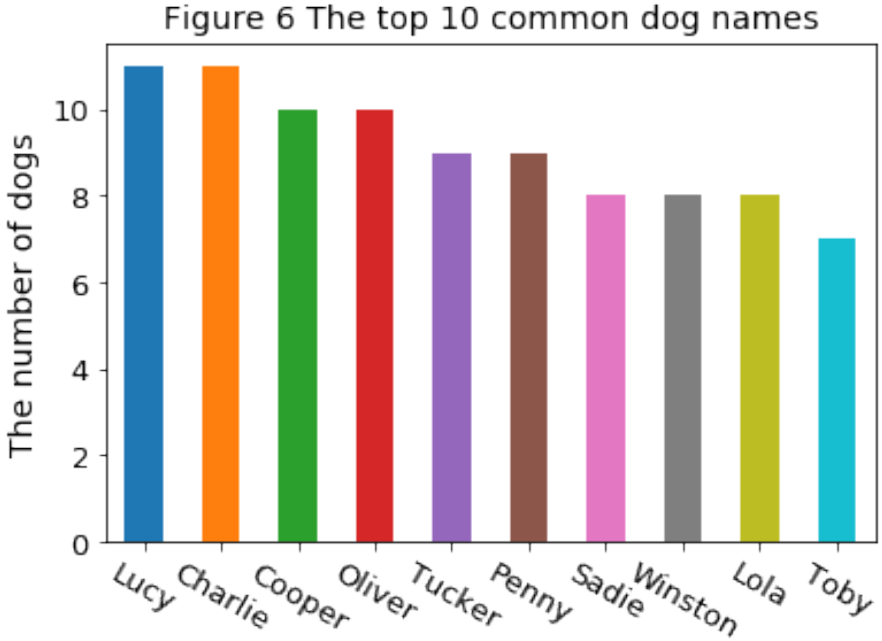
Figure 5 The top 10 common mistakes of neural network



6. What are the most common dog names?

Figure 6 shows the top 10 common dog names. The two most common dog names are Charlie and Lucy.

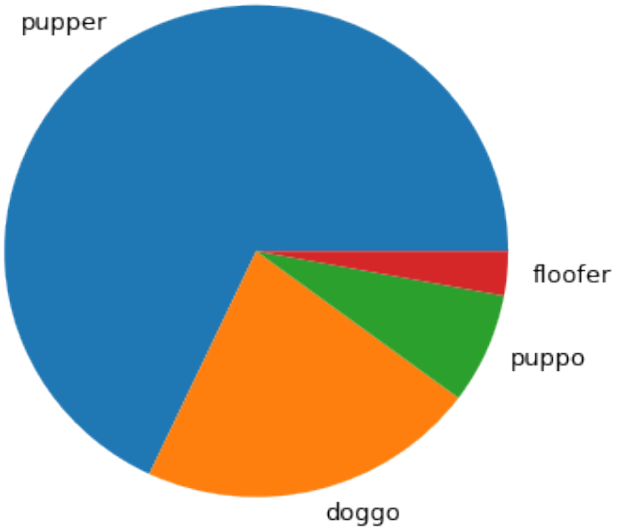
Figure 6 The top 10 common dog names



7. What are the distributions of dog stages?

Figure 7 shows the majority of the dog stage is pupper.

Figure 7 The dog stages



8. How did the rating changes over time?

Figure 8 shows the median of the rating_numerator in each month. It is clear that the rating_numerator is increasing over time.

Figure 8 The median of rating_numerator in each month