Chad Morris Insights & Act Report

Insight # 1

The most retweeted and favorited dog picture, somewhat surprisingly, was a low-quality picture of a puppy in a pool. An assumption I made would be that the most favorited and retweeted picture would be a stunning or very cute or humorous picture of a dog. But for reasons that would require further exploration that isn't the case. The date for this tweet is just 6 months after the creation of the WeRateDogs twitter account which might suggest it is one of the earlier pictures that really made their account go viral.

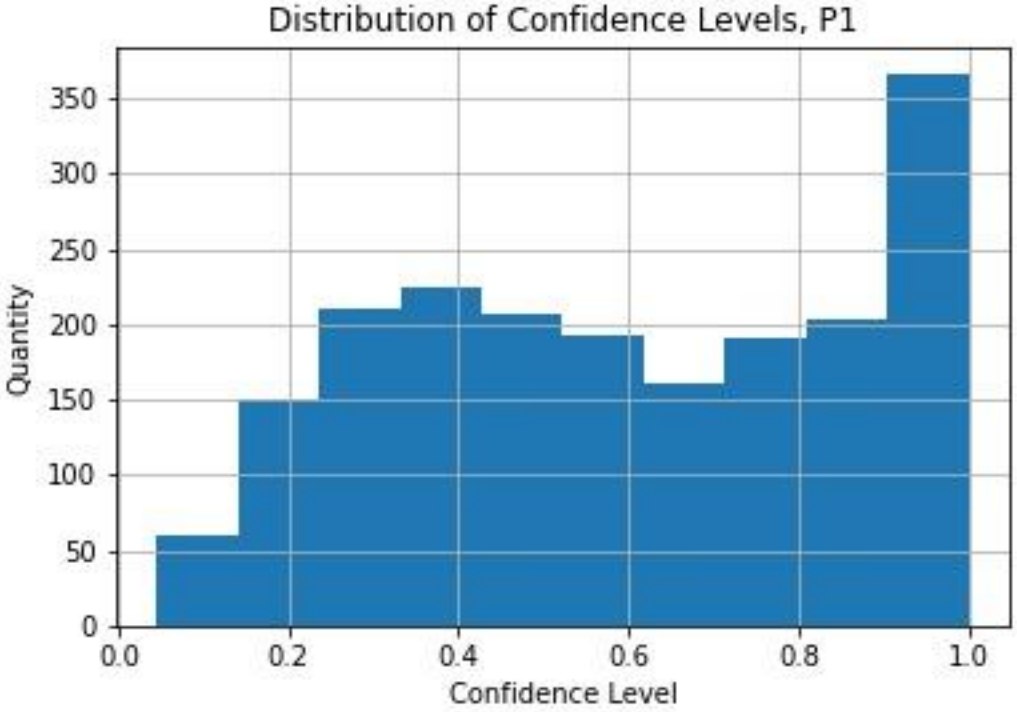
Insight #2

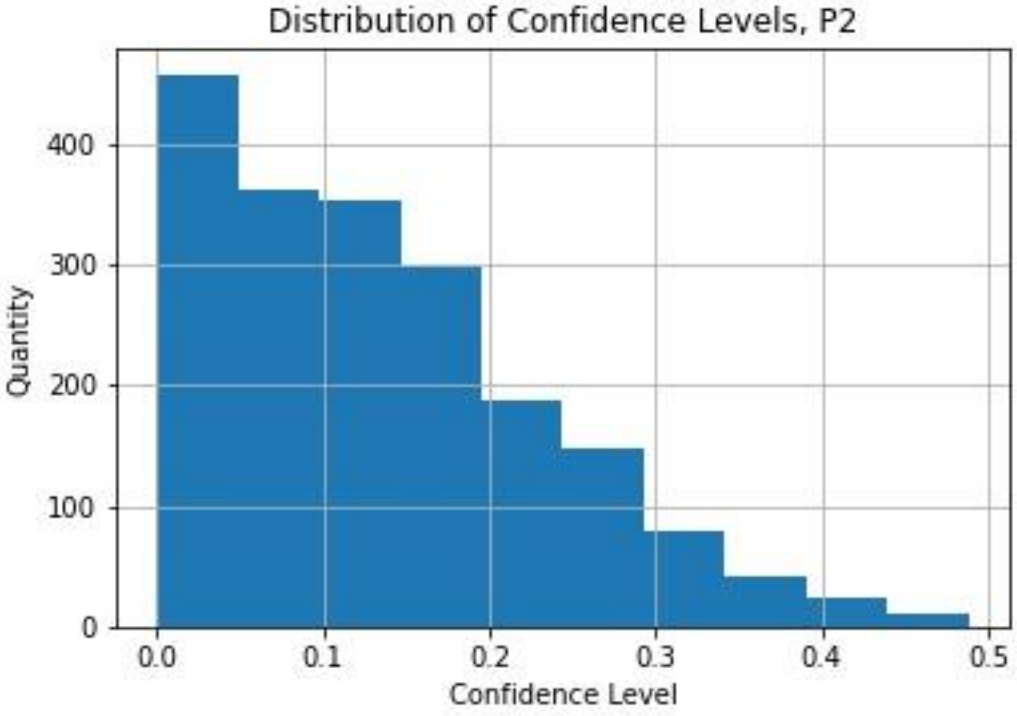
Based on the data at hand, there is quite a high correlation between a picture being retweeted and favorited, as high as .8013. If a person is going to retweet a picture there is a high likelihood that they will also favorite it, and vice-versa. The majority of the time it can be expected that a person will do both.

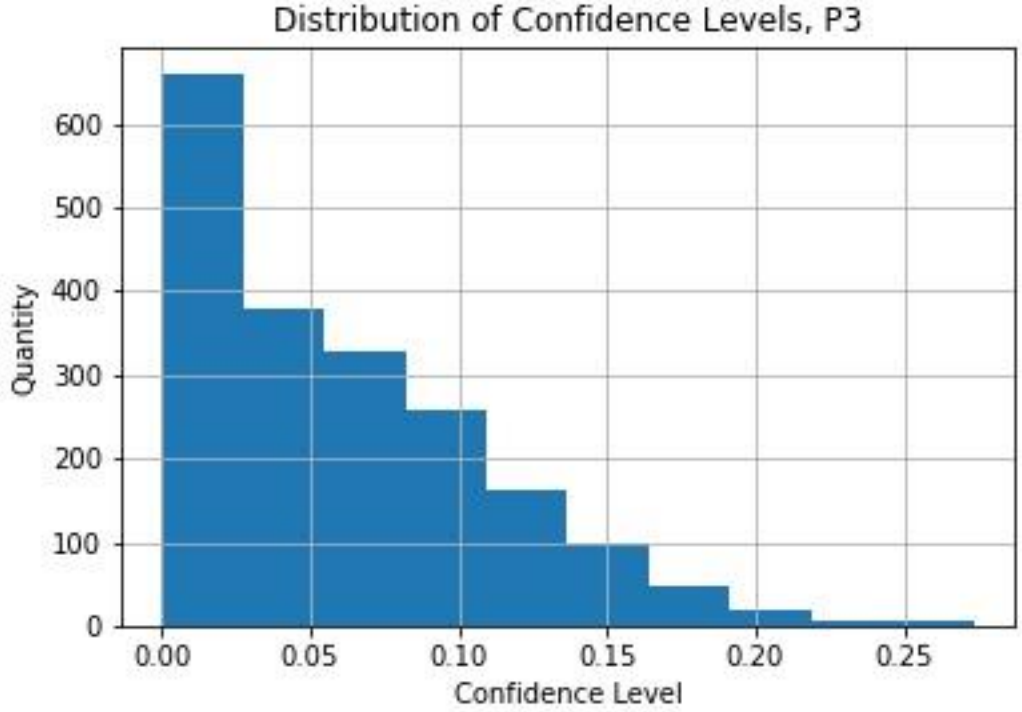
	retweet_count	favorite_count	rating_numerator	rating_denominator	p1_conf	p1_dog	p2_conf	p2_dog	p3_conf	p3_dog
retweet_count	1.000000	0.928199	0.019072	-0.016675	0.047241	0.000800	-0.014167	0.012517	-0.038401	0.005408
favorite_count	0.928199	1.000000	0.016770	-0.023667	0.069548	0.042188	-0.016211	0.052316	-0.046193	0.033764
rating_numerator	0.019072	0.016770	1.000000	0.184841	-0.006999	-0.030792	-0.019751	-0.036241	-0.004223	-0.030879
rating_denominator	-0.016675	-0.023667	0.184841	1.000000	0.012213	-0.006344	-0.038343	-0.007848	-0.006749	-0.002083
p1_conf	0.047241	0.069548	-0.006999	0.012213	1.000000	0.127061	-0.511022	0.142213	-0.707314	0.118888
p1_dog	0.000800	0.042188	-0.030792	-0.006344	0.127061	1.000000	0.110839	0.640160	0.049916	0.560674
p2_conf	-0.014167	-0.016211	-0.019751	-0.038343	-0.511022	0.110839	1.000000	0.096856	0.481933	0.064919
p2_dog	0.012517	0.052316	-0.036241	-0.007848	0.142213	0.640160	0.096856	1.000000	0.033872	0.559345
p3_conf	-0.038401	-0.046193	-0.004223	-0.006749	-0.707314	0.049916	0.481933	0.033872	1.000000	0.035461
p3_dog	0.005408	0.033764	-0.030879	-0.002083	0.118888	0.560674	0.064919	0.559345	0.035461	1.000000

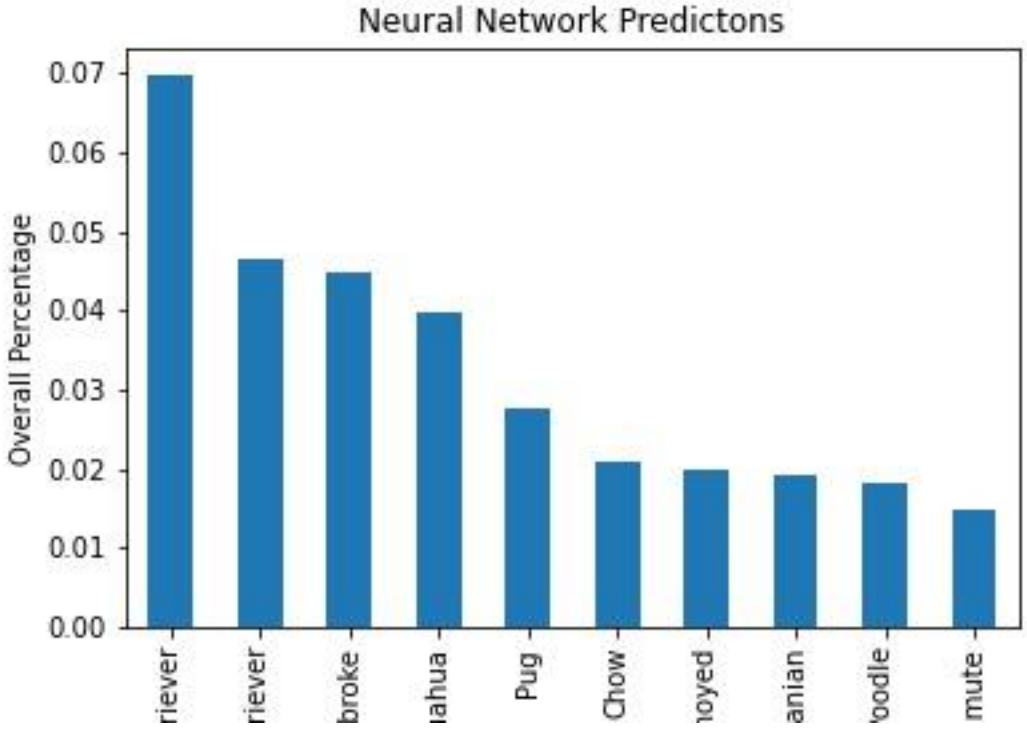
Insight #3

In the case of the predicting and classifying images the neural network produced a substantially higher level of low confidence assessments than it did higher confidence assessments. The distributions for two out of the three levels of prediction confidence - p2, and p3, were right skewed. While p1 saw a more left skewed distribution and high amounts of high confidence predictions. Essentially, this shows that a the neural network saw a lot of images it could be confident about but for it's most confidence predictions but it's second and third predictions saw more less confident predictions when it coulnd't recognize something as clearly. When it came to classifying breeds of dogs the neural network top five best predictions by breed were for Golden Retrievers, Labrador Retrievers, Pembrokes, Chihuahuas, and Pugs, in that order.


Distribution of Confidence Levels, P1
Quantity
Confidence Level
0
50
100
150
200
250
300
350
0.0
0.2
0.4
0.6
0.8
1.0


Distribution of Confidence Levels, P2
Quantity
Confidence Level
0
100
200
300
400
0.0
0.1
0.2
0.3
0.4
0.5


Distribution of Confidence Levels, P3
Quantity
600
500
400
300
200
100
0
0.00
0.05
0.10
0.15
0.20
0.25
Confidence Level


Neural Network Predictons
Overall Percentage
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Pug
Chow