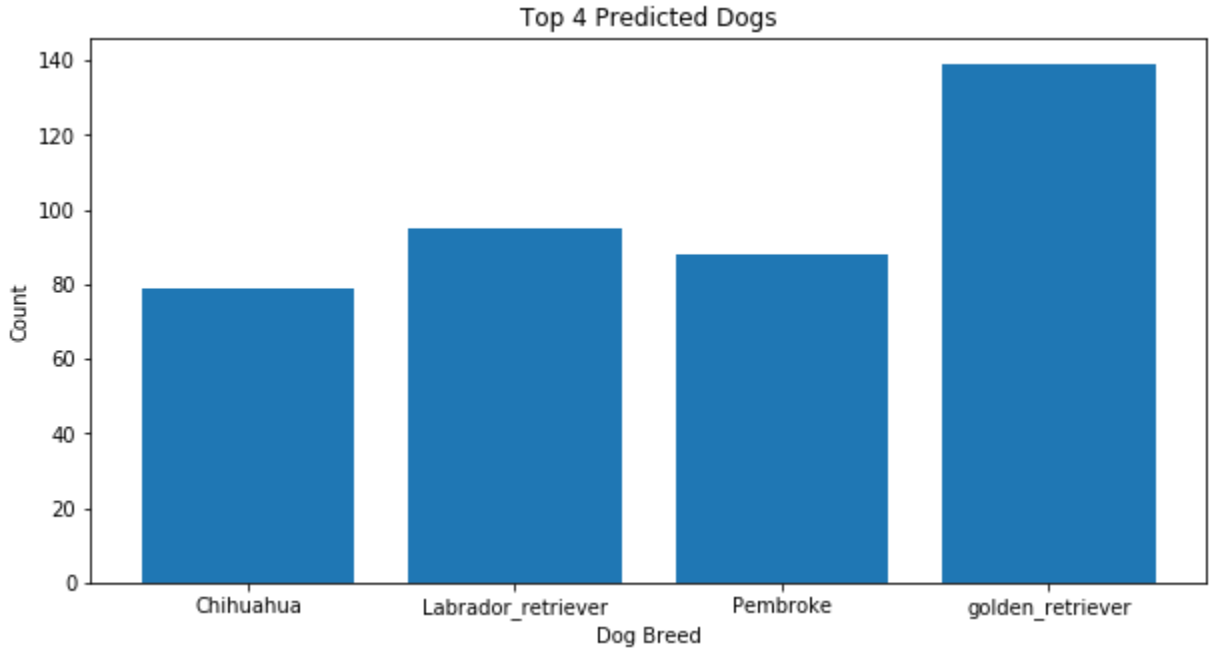
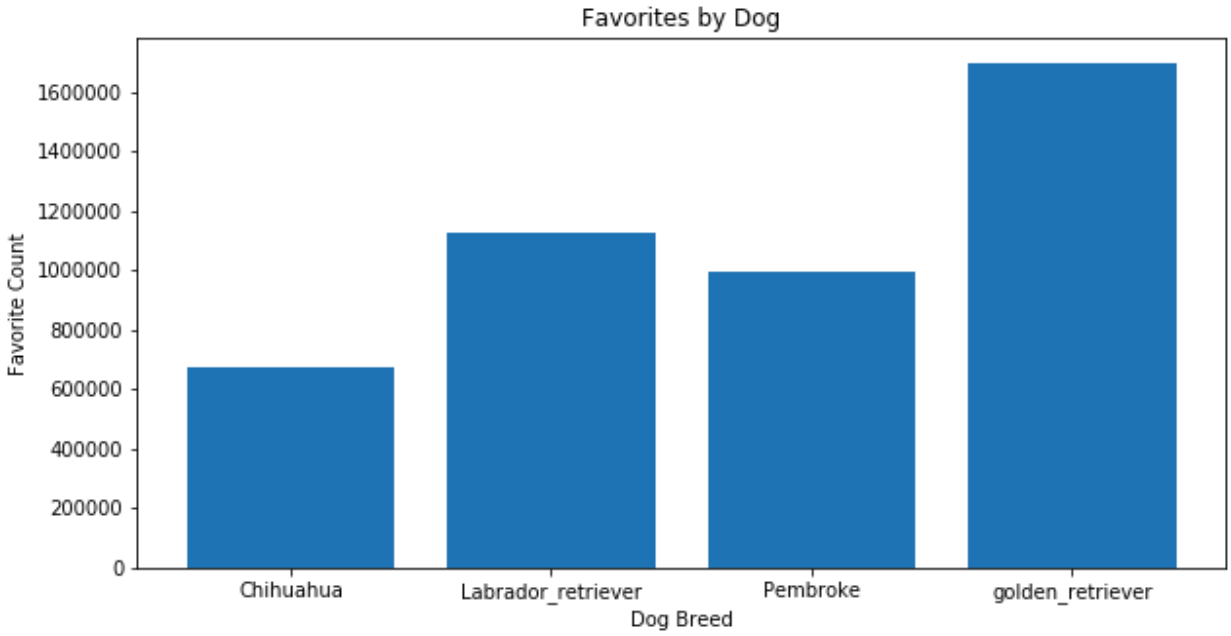
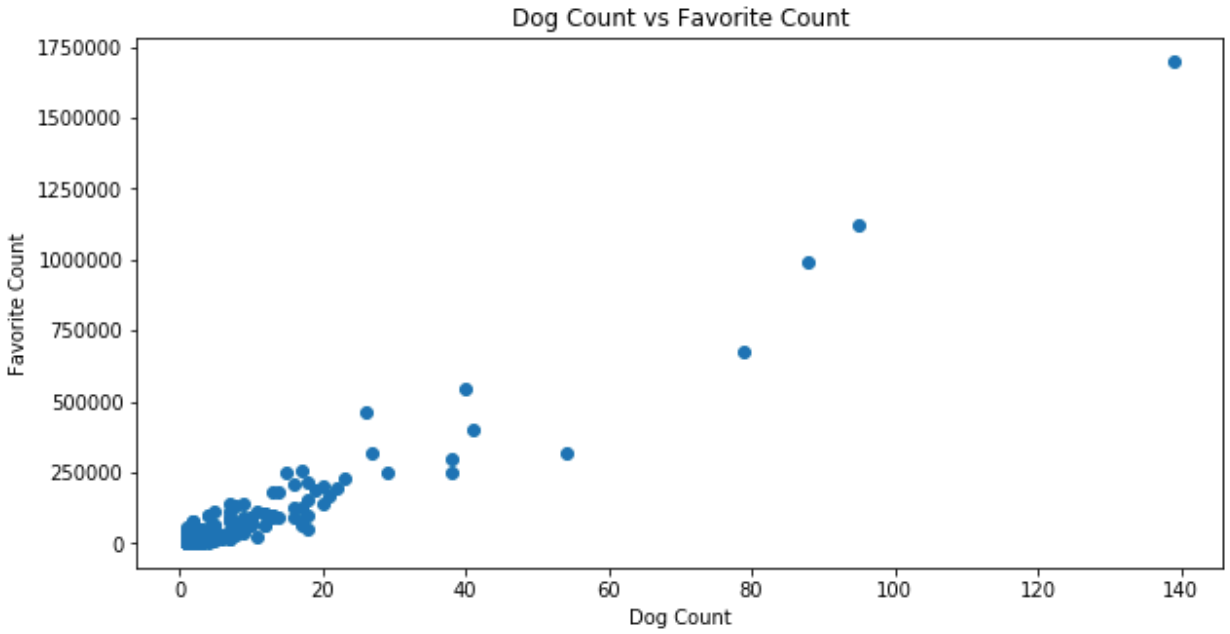
To frame this analysis, I was most interested in the top dog breeds that were predicted by the model. I used the prediction dataset to determine the top four breeds, as the rest were predicted a notable number of times less. I knew that the model had predicted certain breeds more than others because it had more observations of that data. This led me to believe that these breeds might also be more popular, so I decided to test if there was a correlation between the number of times a particular breed was chosen and how many favorites or likes that breed received using the more general dataset instead of the top four dogs.



As we can see from the bar graph above, the model predicted golden retrievers for the majority of the dataset, followed by the labrador retriever, pembroke, and chihuahua. This suggests that these breeds are indeed some of the most popular dog breeds for this dataset.



There seems to be a correlation between the top 4 predicted dogs in the dataset and the number of favorites for each dog. However, we can not be too sure because we did not get the favorite values of the other dog types in the dataset. An interesting observation that emerged from the dataset is the apparent correlation between the top four predicted dog breeds and the number of favorites associated with each breed. This pattern suggests that certain breeds may be more popular or well-liked compared to others. However, it is important to note that the analysis is limited by the availability of data.



There appears to be a strong positive correlation between the predicted dog breed count and the total favorite count for each breed as displayed above in the scatterplot. An intriguing pattern is revealed when examining the relationship between the predicted dog breed count and the total favorite count for each breed, as depicted in the scatterplot. There appears to be a pronounced positive correlation, indicating that as the predicted breed count increases, so too does the overall number of favorites. This association suggests that certain dog breeds garner greater popularity and affection among individuals, resulting in a higher frequency of being marked as favorites.