**9.2 Project 3: Project Check-In/Milestone 2**

1. *Any surprises from your domain from the data?*
   1. Nothing surprising from the domain of the data. Image classification is something I have always been interested in so I am aware of how the data should be used to achieve results.
2. *The dataset is what you thought it was?*
   1. The dataset is, mostly, what I thought it would be. It does contain images from multiple dog breeds, however I discovered it could use some reorganization and renaming to make it neater. In the past when I have played around with image classification I have used datasets that have training and test images already split up. In this case the folders just have images for one class, nothing is separated into train and test. Because of this I will need to come up with a Python program to go through and split up the images. Also, this might be a problem that just annoys me, but I have to fix it. When using Keras the labels are extracted from the directory names. The names of the dog breeds have a label in front of it starting with the letter “n” and multiple digits. This would not hinder the classifier, but my personal style is to make things very readable. This is something I can include in the Python program I will need to create to split images into train and rest sets.
3. *Have you had to adjust your approach or research questions?*
   1. As of right now I don’t have to adjust my approach of research questions. When I created the research questions I had it in mind if I ran into issues I would solely focus on transfer learning. However, I have had results from the custom-built model (albeit not good results).
4. *Is your method working?*
   1. The EDA phase of this project has been my least favorite of the three projects. It takes a lot of time to find out if my methods are working or not. As of right now I have had mixed results, with most of my initial models not performing well. Overall the process is working, but the results are not exactly what I expected. Since I have only completed half the project maybe it will turn itself around. The next sections will go into these issues and challenges I have been facing.
5. *What challenges are you having?*
   1. My biggest challenge has been coming up with an architecture that works. When I’m training the models, the loss tends to go down slowly, with the accuracy remains low. However, as of this update I am not looking at any transfer learning, so maybe the will be the solution. Also, another concern of mine is having the right amount of computing power to create a model efficiently. Training can take a lot of time. My first model took about an hour and resulted in a something that was not accurate. I am going to need to research more on how the number of steps and epochs affect training.