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Assignment 2

After testing the different models with different training sizes, types of network(pre-trained and scratch), and augmentation/dropout, I was able to get the results as follows. Side note: I was not able to get the models on the pre-trained network to fully run because I do not have a strong enough internet connection for them to run on.

1. ML bpalazzo\_2: 1000 training, augmentation/dropout, scratch

No augmentation/dropout: VAcc = .7320, Acc = .8283

Augmentation/dropout: VAcc = .6860, Acc = .6989

1. ML bpalazzo\_2\_2: 1500 training, augmentation/dropout, scratch

No augmentation/dropout: VAcc = .7510, Acc = .8307

Augmentation/dropout: VAcc = .5000, Acc = .6444

1. ML bpalazzo\_2\_3: 500 training, augmentation/dropout, scratch

No augmentation/dropout: VAcc = .6600, Acc = .7741

Augmentation/dropout: VAcc = .5000, Acc = .5200

1. ML bpalazzo\_2\_4: 1000 training, augmentation/dropout, pre-trained

Unable to run

1. ML bpalazzo\_2\_5: 1500 training, augmentation/dropout, pre-trained

Unable to run

1. ML bpalazzo\_2\_6: 500 training, augmentation/dropout, pre-trained

Unable to run

Based on the findings from the models, there seems to be a higher validation accuracy when using more training samples. There also is a higher accuracy when not using the augmentation/dropout methods. Because I was unable to get the accuracy from the pre-trained models, I cannot be certain on this however, I believe that using a pretrained network would achieve higher accuracy than one from scratch.