**Homework #2**

GitHub: <https://github.com/pballou/ECGR_4106/tree/master/Homework>

1. Using a modified version of AlexNet with and without dropout and comparing results. Classifying images from the CIFAR-10 dataset which uses low-resolution images, so this is why we are simplifying the model – AlexNet was originally designed for 227x227 images, so it would likely be too complex for the low-res images in CIFAR-10.

Model size:

Number of parameters vs original alexnet

* 1. Results without dropout:

Train and val loss

Val accuracy

* 1. Results with dropout:

Train and val loss

Val accuracy

1. In problem 2, we are comparing the performance of the ResNet-11 model with a modified version, ResNet-18. We are using the CIFAR-10 dataset for classification again.
   1. ResNet-11

Model size:

* + 1. Results without dropout:

Same as before

* + 1. Results with dropout:

Same as before

* 1. ResNet-18

Model size:

* + 1. Results without dropout:

Same as before

* + 1. Results with dropout

Same as before