

## Lab Four

### MSDS Summer 2021

- Submit code via GitHub Classroom using Markdown Cells to **clearly** indicate which code answers which question and to answer short answer questions.
  - Please put your name at the top of the Assignment as well.
  - Failure to do either of the above will result in points deducted.
1. What is the dimension of a tensor after the **first** Basic Block in ResNet-18? Describe each change in dimension, what layer and why does it change?
  2. Read the Albumentations GitHub ReadMe. Pick your favorite augmentation (pick a weird one for fun). Implement it with probability  $p = 1$  and see how it affects an image.
  3. Fix a reasonable suite of data augmentations for your training data. Compare the performance of three models on the animal faces dataset:
    - frozen AlexNet
    - finetuned AlexNet
    - AlexNet from scratch (set `pretrained=False`)