

Exercise 3

Transfer Learning on Exotic animals Dataset

1. Use the VGG16 pretrained model and train on the Exotic dataset.
2. Do two versions – Feature Extraction and Fine-Tuning.
3. For the finetuning version, the choice of how many layers and which ones you want to not freeze, is yours.
4. Build the training and testing loops by choosing all the required hyper-parameters like loss function, optimizer, et, etc.
5. Save the model – Look at PyTorch documentation / examples .
6. Do it for 2 epochs and print the results of loss and accuracy.
7. Download the image of any one of the animals from the internet and write a predict function to predict the outcome using the built model – preprocessing would be required.
8. Submit 2 separate Jupyter notebooks.
9. Exercise is due by Sep 3rd midnight.