DTV HW1 - Classification

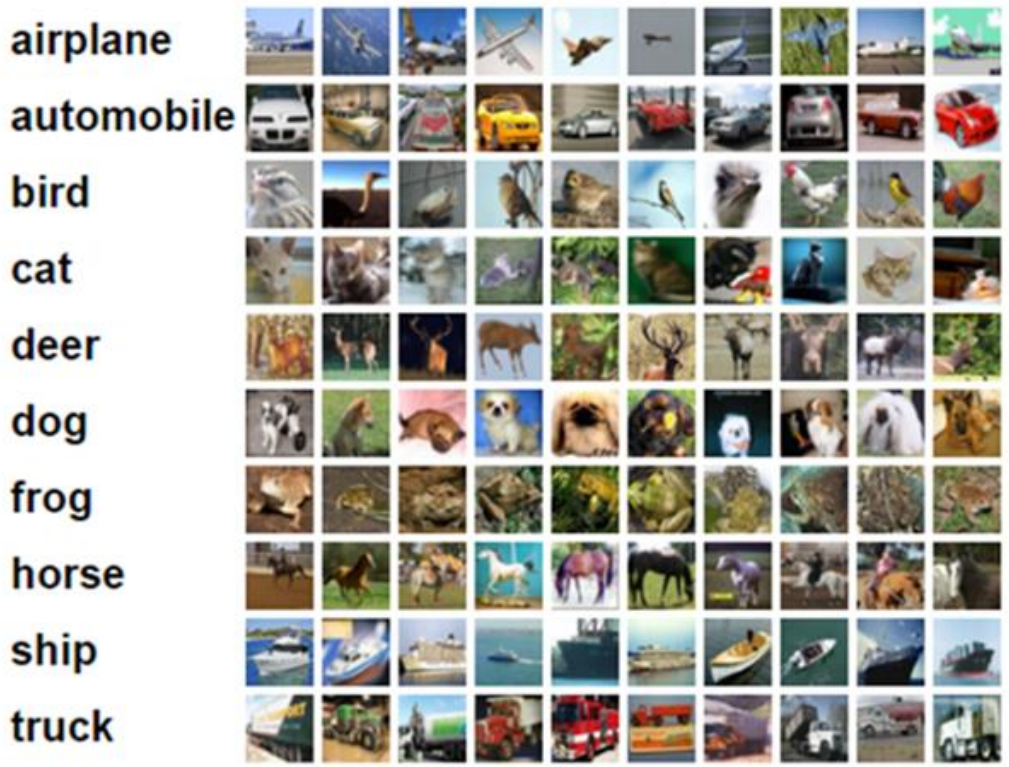
Deadline: 2018/10/11

Lab Objective

- Train a neural network to do classification.
- Recommended framework: pytorch
- Dataset: Cifar-10
- Goal: Top 5 error rate < 10%
- Fewer parameters can get higher score!

Cifar-10

- The CIFAR-10 dataset consists of 60000 32×32 color images (RGB) in **10** classes, with 6000 images per class. There are 50000 training images and 10000 test images.



- Do not use test images to train your network!

Score:

- Demo and Report (80%):
  - top 5 error rate < 10%
  - TAs will ask you some related questions
  - Report spec:
    - 1. Introduction
    - 2. Experiment Setup (detail of your model, your parameters)
    - 3. Result (your top 5 error rate, training loss curve, test error curve)
    - 4. Problems encountered and discussion
- Number of parameters(20%)
- You should hand in both your code and report!

Reference

- Pytorch document: https://pytorch.org/docs/stable/index.html
- Pytorch tutorial: https://morvanzhou.github.io/tutorials/machine-learning/torch/
- Cifar-10: https://www.cs.toronto.edu/~kriz/cifar.html