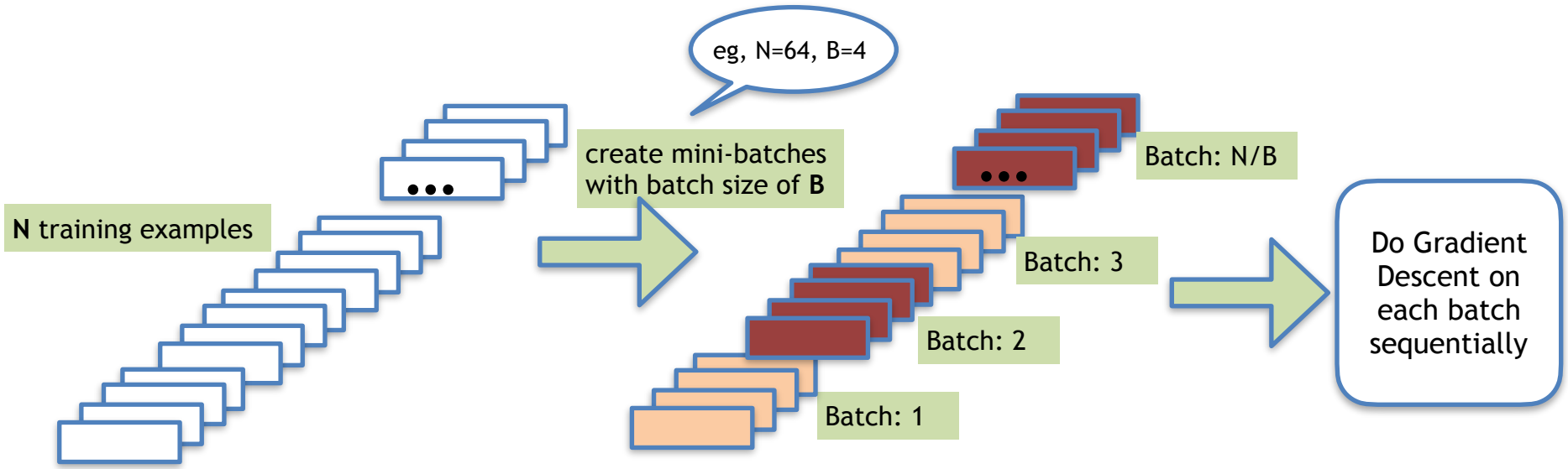
CS167: Machine Learning

MLP Training using PyTorch

Monday, April 20th, 2026

Drake UNIVERSITY

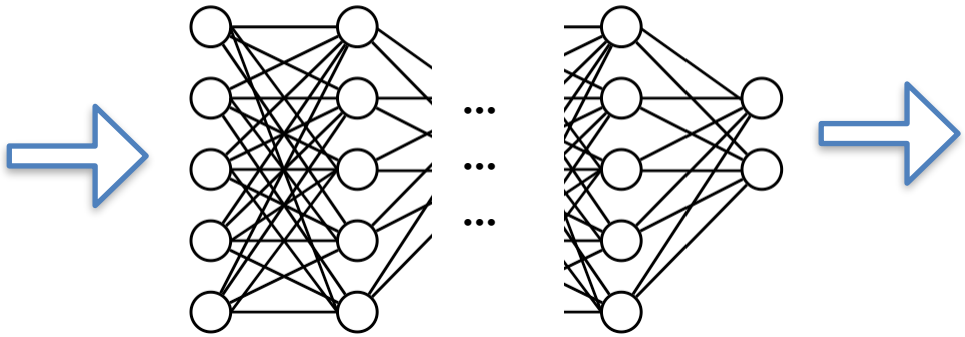
Stochastic Gradient Descent (SGD)



Poll: MLP Summary

- Finish the MLP poll below:

https://forms.gle/jEDrK5z75BKmfCzu6



Notebook#5 (released)

- It has two parts. Start working on part#1 which is MLP

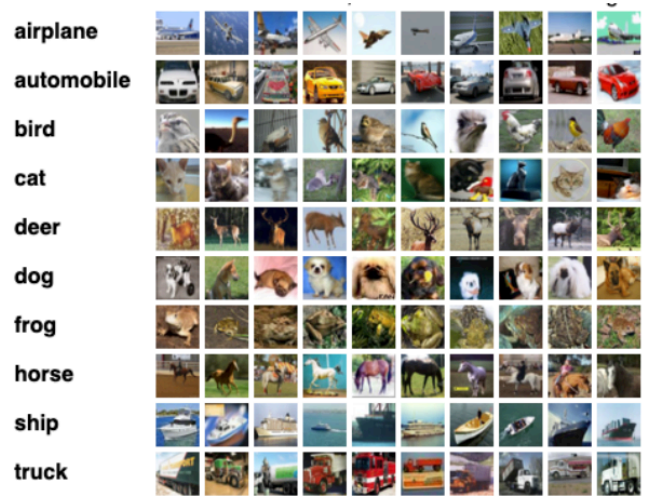
https://github.com/alimoorreza/CS167-SP26-Notebook-5

Notebook #5

Deep learning with MLP and CNN for an image recognition task.

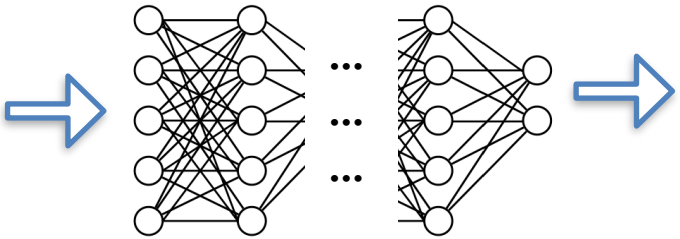
The Data: 📊

For this notebook, you will train two deep neural networks (DNN): **Part 1) a multilayer perceptron (MLP)***, and Part 2) a convolutional neural network (CNN) for an image recognition task, such as the cat vs. dog example. In this case, the algorithm will utilize a dataset of images to learn useful features for classifying an image into one of 10 classes. You should be using the CIFAR-10 dataset.



What's Next?

- A **multilayer perceptron** (MLP) is the simplest type of neural network. It consists of perceptrons (aka nodes, neurons) arranged in layers



- A **multilayer perceptron** (MLP) is just the tip of the iceberg; plenty of other neural network variants exist.

- Convolutional Neural Network (CNN): another type of neural network