**PyTorch Learning Notes**

Most machine learning workflows involve working with data, creating models, optimizing model parameters, and saving the trained models.

**Tensor**

1. Basic data structure, ndarray
2. Creation, best option of torch.tensor()
3. Attribute of shape, dtype, device, layout
4. Operations & Methods of reshape(), squeeze(), unsqueeze(), flatten(), element-wise, argmax() and reduction

**Dataset & DataLoader**

1. Custom Dataset Creation, w/ \_\_init\_\_, \_\_len\_\_, and \_\_getitem\_\_
2. DataLoader is an iterable, w/ functionalities in batching, shuffling and parallel data laoding

**Neural Network Design**

1. Create a neural network class that extends the nn.Module base class
2. In the class constructor, define the network’s layers as class attributes using pre-built layers from torch.nn -> \_\_init\_\_(self)
3. Use the network’s layer attributes as well as operations from nn.functional API to define the network’s forward pass -> forward(self)
4. Understand layers’ parameters
5. Output size formula