Summary of Project

The project creates an artificial neural network using PyTorch and trains it to identify articles of clothing. The clothing data is stored in the folder ‘data’ and was downloaded from http://fashion-mnist.s3-website.eu-central-1.amazonaws.com. If for some reason you lose this folder, the code will download the folder anew (it will take a while though so just keep the data folder).

The program creates a training set, a validation set, and a test set and uses 3 different neural networks to learn the data: 1. a regular network with 1 hidden layer, 2. same as 1, but with an added dropout layer that potentially zeroes out the outputs of each layer, and 3. same as 1, but with added batch normalization on the outputs of each layer.

The program outputs its results from training, validating, and testing on each of the three layers. The output is formatted and labeled and should be self explanatory.

How to Run

Assuming you have python, just open a terminal, cd to the directory containing the code file and the data folder, and enter `python ml_code.py`.