**March 28, 2018**

Struggling with getting sparser tensor for sparse-sequential MNIST. An issue with how I am interfacing with the DataLoader output.

Notes:

1. <https://pytorch.org/docs/stable/data.html>
2. <https://pytorch.org/tutorials/beginner/data_loading_tutorial.html#>

New datasets for character-based word prediction

1. 20Newsgroup dataset: <https://www.google.com/search?q=20Newsgroup&oq=20&aqs=chrome.5.69i57j69i61l3j69i65j69i59.2983j0j7&sourceid=chrome&ie=UTF-8>

To do

1. Get the sparse-sequential task working
2. Try out the PRNN and PRNN-LSTMs on the Newsgroup datasets

**March 29, 2019**

1. The Sparse-Sequential task for MNIST works. However, the training accuracies are still somewhat variable. Using 400 hidden neurons
   1. Vanilla RNN
      1. 1x(14x14): feed in one pixel at a time. Training accuracies at around 11% (and plateau’d)
      2. 14x14: by 10 Epochs, the accuracies are around 60% and steadily climbing. By 30 Epochs,
      3. (14x14)x1 (i.e. feed the whole vector in at once). Training frequencies are around 89% by 30 Epochs
      4. 4x(7x7) (i.e. read the image four pixels at a time, training the image on the 4 pixels). Over 30 epochs…