1. Profile your distributed training experiments conducted in Lab #2 further to gain insights about performance. Profiling analysis should include:
2. Breakdown of computation and communication time
3. Identification of any specific communication pattern, (e.g. Broadcast, All-to-all, or something other)
4. Factors that affect the amount of computation. (e.g. batch size)
5. Factors that affect the amount of communication performed (e.g. model type)
6. Investigate opportunities for performance improvement for your chosen DL framework. This is an open research question, so you can explore different options to accelerate the training time.

A few example options are provided below:

* 1. Overlapping of communication and computation
  2. Using multiple CUDA streams for computation and communication
  3. Finding out the best set of hyper-parameters like learning rate to train quickly
  4. Using different communication libraries to improve performance (e.g. OpenMPI vs. MVAPICH2)