## Homework – Performance study of (a small part of ) Neural Network

- Estimate time (computation) and space (memory) complexity of a convolution layer (Conv2d-2) of MNIST CNN
- Code: <a href="https://github.com/pytorch/examples/tree/master/mnist">https://github.com/pytorch/examples/tree/master/mnist</a>
- Image data will be downloaded automatically
- 1. Pen and paper method to estimate the complexity
- 2. Run and measure the complexity
- 3. Try diff batch sizes, draw a chart (x axis: batch size, y axis: flops and/or mem)
- 4. Discuss the difference between estimated and measured results
- 5. Bonus: try with diff shape/dimension of Conv2d-2 layer and report the results
- 6. Due on Mar. 16, 2024 at 11:59pm