CS 446 / ECE 449 — Homework 0

Version 1

Instructions.

- Homework is due **Wednesday, September 1, at noon CST**. Homework 0 **does not** count into your grade for this course.
- Everyone must submit individually at gradescope under `hw0` and `hw0code`.
- This is a **calibration** homework; please work alone and don't hunt for solutions. If Homework 0 is difficult for you, extensive efforts are expected to complete this course.
- Code submitted on gradescope has an autograder. You can resubmit multiple times, and the autograder is re-run each time you submit.

Questions.

1. Answer all questions at gradescope under `hw0`.
2. Fill out the template `squares.py` (found on Campuswire-`Files`) with two functions.
   (a) Given an integer k, return $(1, 2^2, \ldots, k^2)$ as a numpy array.
   Library routines: it suffices to use `numpy.arange` and arithmetic operations.
   (b) Given an integer k, return $(1, 2^2, \ldots, k^2)$ as a pytorch array.
   Library routines: it suffices to use `torch.arange` and arithmetic operations.

   Submit your solution on gradescope under `hw0code`. Remember that you can submit multiple times!
3. Plot the function $f(k) = k^2$, e.g., using `matplotlib` (**do not** submit figures and **do not** submit this part of code. We just want you to get familiar with plotting).

Note. This coding part may seem silly, but please take it seriously, and use this time to get familiar with Google colab and pytorch, as well as the autograder, etc.