## CS 639: Deep Learning for Computer Vision, Spring 2024 Problem Set 0

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Due: Tuesday, February 6th, 11:59 PM

## **Instructions**

- 1. Download the zipped assignment file from Canvas.
- 2. Once you unzip the downloaded content, please upload the folder to your Google Drive. Then, open each \*.ipynb notebook file with Google Colab by right-clicking the \*.ipynb file. No installation or setup is required. For more information, please see this tutorial on using Colab.
- 3. Next, we recommend editing your \*.py file on Google Colab, set the ipython notebook and the code side by side. Work through the notebook, executing cells and implementing the codes in the \*.py file as indicated. You can save your work, both \*.ipynb and \*.py, in Google Drive (click "File" -> "Save") and resume later if you don't want to complete it all at once.
- 4. While working on the assignment, keep the following in mind:
  - The notebook and the python file have clearly marked blocks where you are expected to write code. **Do not write or modify any code outside of these blocks**.
  - **Do not add or delete cells from the notebook**. You may add new cells to perform scratch computations, but you should delete them before submitting your work.
  - Run all cells, and do not clear out the outputs, before submitting. You will only get credit for code that has been run.
- 5. Once you have completed a notebook, download the completed uniqueid\_PSO.zip file, which is generated from your last cell of the pytorch101.ipynb file. Submit this to Canvas. Note that only one person from the group will need to do this.
- 6. You may complete the assignment individually or with a partner (i.e., maximum group of 2 people). If you worked with a partner, provide the name of your partner in the \*.ipynb file. We will be using MOSS to check instances of plagiarism/cheating.

The goal of this assignment is for you to learn how to use <u>PyTorch</u> on <u>Google Colab</u> environment, so that you

- Develop proficiency with PyTorch tensors.
- Gain experience using notebooks on Google Colab.

The notebook pytorch101.ipynb will walk you through the basics of working with tensors in PyTorch. You are required to write code on pytorch101.py.1

<sup>&</sup>lt;sup>1</sup> This assignment is adapted from the Python and numpy tutorials from Stanford CS 231n and CS228.