

Questions/Checklist: (Add details as appropriate...)

1. Does the .zip file that contains the demo contain everything (for packages, this means the requirements.txt) required to run the entire demo on both colab and from a fresh conda install. The main source should be entitled demoN_topic.tex.

Yes.

2. Are there comments in the Demo itself that point to the specific topic covered in lecture pointing to the exact conceptual scope of this demo?

Yes, this demo is focused on data augmentation covered in the ConvNet lectures.

3. Does the demo try to align notation with lecture to the extent possible, and use comments to explain why and where the notation might differ from lecture?

There is not that much notation from lectures, but the phrasing and intuition is inspired from there.

4. Does every cell in the demo run without needing the user to modify anything and do visualizations appear clearly? If not, give comments here...

Yes.

5. Does the demo use animations effectively where animations would help convey the relevant idea? If not, give comments here...

The visuals are very clear, but no animations.

6. Is the text in the demo written in correct written English — no spelling errors or grammatical mistakes? If not...

Demo is written in correct English and no spelling mistakes.

7. If there are images or drawings within the demo notebook:
 - a. Does the demo also include a citation to where the image came from?
 - b. If the image/drawing is not cited, is the source code used to generate the image/drawing included in the .zip file? (e.g. if the image was made using Adobe Photoshop, the photoshop source file should be present.)
 - c. If the image is from somewhere else, does the license for that image permit its free use by others?

a. Yes. Cited & open source.

- b. N/A
 - c. Yes (noted above).
- 8. Is the math in the demo correct?
 - a. Are there tests within the demo notebook for verifying the correctness of the math as implemented?
 - b. Does the math match the approach taken in class, or when there is a difference (e.g. comparing PyTorch's implementation of momentum and how it is taught in lecture) are these explicitly called out clearly?
- a. This demo is not math focused or based.
- b. Noted above.
- 9. If there are calls to python libraries, are all the arguments explicitly specified? (even if you are using default values for parameters, it is important to have them be clearly visible in a demo so that students can see them)

Most arguments are specified.

- 10. Is the code as written in the demo clear and well commented?

Code is well commented, but could have more inside function definitions to explain usability.

- 11. Are the plots in the demo clear and comprehensive?
 - a. Are there appropriate error-bars on plots that can reasonably have error bars? (if there is randomness involved, there probably should be error bars)
 - b. Are the axes clearly labeled?
 - c. Are the choices for axis scale (log, linear, etc.) correct to most clearly illustrate the phenomenon being illustrated?
 - d. If there are a small number of points that are being connected with lines, are the points clearly marked?
- a. No error-bars.
- b. Yes.
- c. Yes.
- d. Loss curve, probably not necessary for points.
- 12. To fully explain and understand the concepts being engaged with using the demo, are there missing examples, calculations, plots, etc. that you feel would be nice to see? Have these been listed out at the end of the demo in a section: "What we wish this demo also had to make things clearer?" The reviewer should feel free to add suggestions here.

I think we covered a lot of good bases in this demo.

13. Any other comments on the demo that would be helpful to evaluate it or make it better for people who might want to learn this material? (Remember, our goal is for the demo to be available on the website along with the scribe notes for all to see.)

Not anything that hasn't been mentioned already.

- 1.