

CS348K: Visual Computing Systems

Class/Reading Response Template

Reminder: please make sure the PDF you submit to Gradescope DOES NOT have your name on it. We will concatenate all responses and give everyone in the class a PDF of all responses.

Part 1: Top N takeaways from discussions in the last class. Note: this part of the response is unrelated to the current reading, but should pertain to the discussion of the prior reading in class (or just discussion in the class in general, if there was no reading):

- What was the most surprising/interesting thing you learned?
 - Data augmentation needs to be compatible with the data itself. For example, changing the color of a picture of nature is not a good idea. Actually, I always apply the same augmentation to all kinds of data that I use, from ImageNet and CIFAR to medical datasets like CheXpert. Therefore, I believe we should pay more attention to this aspect.
- Is there anything you feel passionate about (agreed with, disagreed with?) that you want to react to?
 - I think data augment is very useful and convenient. It can help overcome the problem of insufficient training data by generating new training examples with simple approach, like flipping, rotation, translation, nosing and so on. Also, it is necessary to carefully select and apply the appropriate augmentation techniques to avoid introducing errors and biases.
- Did class cause you to do any additional reading on your own? If so, what did you learn?
 - I won't be able to provide further reading because I am currently occupied with preparing for midterms this week.
- Major takeaways in general?
 - Label is precious, so it is important to acquire supervision. One approach is making more labels, and the other is making labels more efficient.
 - A summary of system support for ML, including SW, HW and compiler. Most system focus on performance and scalability.

Part 2: Answers/reactions to instructor's specific prompts for this reading. (Please see course website for prompts).

Part 3: [Optional] Questions I'd like to have specifically addressed via in class. (We also encourage you to just post these questions on Ed immediately so anyone can answer!)