CIS 7000-005: Debugging Data & Models

Fall 2022

Final Report— November 3

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Goals of the final report:

- 1. Summarize the work that you've done and what you've learned from it.
- 2. Develop a research strategy looking beyond the project.

Content of the final report

You should expand the checkpoint to now include all the results that you have developed since then. In addition, you should include new paragraphs for conclusion, broader impacts, and reflection as detailed below.

Results. The main experiments/results section should also include the following:

- 1. For the work that you hoped to complete for the final report and did in fact complete: what was the result of the experiment or theory? Did it turn out fruitful, with interesting takeaways? If not, what factors led to this not producing an interesting result?
- 2. For work that you hoped to complete for the final report and did *not* in fact complete: what factors led to the work being incomplete? Were there underlying issues that you did not know about until now?

Conclusion. You should also include a conclusion for the final report. A conclusion that merely restates the entire paper is not a useful conclusion. Great conclusions are inspiring and leave the reader wanting to investigate more, typically by (a) re-emphasizing any highly impactful results you have created or (b) showing the reader that there are still many interesting directions to explore. Conclusions are a great place to acknowledge limitations of the current work as a future direction.

Broader impacts. A broader impacts statement is becoming a more common requirement in ML conference submissions. In some cases it may be the case that there is truly little to no broader impact of the work, however this tends to be quite rare. Think carefully on how the work that you are trying to do will impact the general society at large—who will benefit, and who can potentially get harmed by such technology? Think beyond the scope of your project and what the ultimate goal that your work is building towards.

Reflection. This paragraph is not typical in a conference submission and is specific to the course project. The goal here is to think at a higher strategic level about your own research process. Be sure to answer the following questions and reflect on how the project went:

- What did you find more difficult or easy than you expected?
- Would you have done anything differently if you were to do the project again?
- Where do you see this project going, hypothetically? If you had more time, would it be worth pushing certain directions further? Or has the initial research direction dried up and is no longer worth pursuing?

It is easy to get caught up in the weeds of your work, and lose sight of the bigger picture. To be an efficient researcher, you can learn to reflect and optimize your own overall research process.

Format

Use the same format as the checkpoint. In total, aim for a main paper of no more than 4 pages excluding broader impacts, reflection, references, and appendices. This is a typical workshop submission limit.

You may find that it is hard to fit all your content into 4 pages. This is normal—you will need to cut down the frills and prioritize what you believe is the most compelling story and results (this may also involve going back to your checkpoint submission and reducing what you previously wrote). In practice, a strong conference submission will have done much more work than can fit in full paper limit of 8 pages. These tend to be well-regarded because such papers contain little to no filler in those 8 pages, yet at the same time are rigorously backed by substantial supplementary results.

Formatting exception: If you are intending to submit this work to a conference in the next month (i.e. ICML), then you can ignore this formatting requirement and use the conference submission format instead. Please let me know if you intend to do this. Regardless, the final report should still include a broader impacts and reflection.

Deadline The new deadline is the end of semester, December 22nd.