CS594 DL-NLP Final Project (300 points)

Fall 2020

1 Project Report (∼ 6-8 pages)

Following from the progress update, below is a suggested structure for your report, which should also use the ACM conference template. While you don't necessarily have to organize your report using the sections below in this particular order, this organization would likely be a good starting point for most projects. When appropriate, you can re-use material from the progress update (possibly improved based on the feedback received from the instructor, if applicable). Your project report work will be easier if you did a good job already when writing the progress update.

- **Title, Authors (team members and collaborators)**
- **Abstract**: Briefly describe your problem, approach, and key results. Your abstract should be no more than 300 words. (20 points)
- **Introduction**: This section introduces and motivates your problem in the context of related work, and describes the overall plan for approaching your problem, and give an overview of the results. (50 points)
- **Related work:** Discuss previous work related to your project, and how your work is similar to or different from existing work. (30 points)
- **Problem statement**: Describe your problem precisely. (10 points)
- **Technical Approach**: Describe the methods you intend to apply to solve the given problem. This is where you describe the architecture of your model, and also the baselines. Emphasize novelty, when applicable. Why is your approach the right thing to do? Did you consider alternative approaches? It may be helpful to include figures, diagrams, or tables to describe your method or compare it with other methods. (40 points)
- **Experimental setup**: Describe the data used, research questions, experiments, experimental details (e.g., hyperparameters), evaluation metrics. (50 points)

  - **Data**: Carefully describe the data you are working with for your project. What type of data is it? Where did it come from? How much data are you working with? Did you have to do any preprocessing, filtering, or other special treatment to use this data in your project? Consider providing statistics about the data in the form of a table.
  - **Experiments**: Discuss the experiments that you performed to demonstrate that your approach solves the problem. The exact experiments will vary depending on the project, but you might compare with previously published methods, perform an ablation study to determine the impact of various components of your system, experiment with different hyperparameters or architectural choices, use visualization techniques to gain insight into how your model works, discuss common failure modes of your model, etc.

- **Results**: State and evaluate your final quantitative results. If appropriate, use a table or plot to compare multiple results and compare against baselines. Comment on your results. Are they what you expected? Why do you think that is? Including training curves might be useful to discuss whether things are training effectively. (40 points)
- **Conclusions and Future Work** Summarize your key results - what have you learned? Suggest ideas for future extensions or new applications of your ideas. (10 points)
- **Team Work Division and Overall Experience**: This section should include a brief summary of what each team member did for the project (about 1 or 2 sentences per person). For almost all teams, this description will have no effect (all team members will receive the same grade), but for teams with very unequal contributions, we may give different grades to team members.
- **References**: Your references section should be produced using BibTeX.
- **Appendix (Optional)**: If you wish, you can include an appendix, which should be part of the main PDF, and does not count towards the 6-8 page limit. Appendices can be useful to supply extra details, examples, figures, results, visualizations, etc., that you couldn't fit into the main paper. However, you should assume that your grade will be based on the content of the main part of your report only.

2 Code

- Please submit your code and instructions on how to run. (50 points)

3 Due date

- Project reports: due Tuesday, December 8.