LLMs Project Guidelines

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1 Dates

Oral Presentation 12/01/2024, 13:45–17:45 (schedule to be determined).

Presentation Slides + Intermediary Report 10/01/2024.

Final Project Report 26/01/2024.

2 Instructions

Objective of the Projects

- Almost every article relies on some custom code. You are required to re-implement it by yourself, when possible.
- You should apply the method of the article to conduct several experiments. There should be novelty between your experiments and what's in the paper. For instance, you can propose different models, new datasets, adapt the method to another related problem, etc.
- This is optional, but if your article permits it, you are free to propose new ideas based on the article with the associated experiments. Negative results will also be valued, as long as they are well analyzed.
- We are interested in your ability to analyze and apply the methods presented in the article.

Submission

- Your **code** in whatever format you like (notebook or Python script).
- An **intermediary PDF report** of at most 7 pages.
- The **presentation slides (as PDF)**.
- A **final PDF report** of **at most 8 pages**.

Reports Guidelines

- There are two reports: a first intermediary one due before the presentation and the final one, two weeks after the presentation.
- The final report should take into consideration the remarks made during the presentation and be an improved version of the intermediary one.
- The reports should feature a detailed **contributions section**. You should make very clear what your own contributions are, for the code, the experiments, and the possible new ideas. This is also the section were you should disclose possible uses of AI assistants (ChatGPT, Copilot, etc).
- There should be a **limitations section**. In this section, you should raise some critiques regarding the article and your own work.
- Visual presentation will account for the evaluation.

AI assistants usage

- To benefit the most from the project, we recommend avoiding the use of AI assistants.
- If you still decide to use one of them (ChatGPT, Copilot, etc), please disclose it precisely in the **contributions section**, and explain why you made that choice. If pertinent, give information about how you used these tools. This is now common practice in research.

Coding guidelines

- Any effort made to make the code readable and easy to follow will be valued. Here are some hints.
- This does not mean putting too many comments, but more likely writing understandable code.
- Choose meaningful variable names.
- Write modular code, with meaningful function names. If necessary, put a quick docstring in your functions indicating what it does.
- Typing is not mandatory, though this is a general good practice and can help for readability.
- Use `black` on your final code (see `https://black.readthedocs.io/en/stable/getting_started.html`).

3 Evaluation

- As a general principle, we will grade your understanding of the paper (approximately 40% of the grade) and your contributions (about 60% of

the grade). This will be done mainly through the report and the oral presentation.

- We are, of course, aware of your computational limitations. We do not expect something that requires more than a Google Colab GPU to run. This means that if your paper uses a very big model (GPT3.5, GPT4, Llama–70B), we do not expect you to do the same. Instead, this can be the opportunity to study if the method works with smaller models or to explore the performances in a low data regime (few-shot learning). You can also use model quantization to run these big models on limited resources (a lot of tutorials, for instance, on HuggingFace, explain how to do that).