CS5302/EE519 - Speech and Language Processing Reading Assignment 1

Overview

The aim of this component is to elevate your understanding of NLP research by delving into academic papers and critically evaluating them, akin to a reviewer at an actual conference. This involves analyzing the clarity of the research objectives, the soundness of the methodology, the significance of the results, and the overall contribution to the field.

Note that this assignment is to be done in **groups**.

All groups must work on the following paper: Large Language Models in Machine Translation

Objectives

As mentioned before, the goal is to critically analyze papers and review them. To this end, we will follow the guidelines set by the ICML organization. For your paper, you will be writing a review on the following grounds:

1. **Summary:** Briefly summarize the paper and its contributions. This is not the place to critique the paper; the authors should generally agree with a well-written summary.

2. **Strengths and Weaknesses:** Please provide a thorough assessment of the strengths and weaknesses of the paper, touching on each of the following dimensions: originality, quality, clarity, and significance. We encourage people to be broad in their definitions of originality and significance. For example, originality may arise from creative combinations of existing ideas, application to a new domain, or removing restrictive assumptions from prior theoretical results.

3. **Questions:** Please list up and carefully describe any questions and suggestions for the authors. Think of the things where a response from the author can change your opinion, clarify a confusion or address a limitation. This can be very important for a productive rebuttal and discussion phase with the authors.

4. **Limitations:** Have the authors adequately addressed the limitations and potential negative societal impact of their work? If not, please include constructive suggestions for improvement. Authors should be rewarded rather than punished for being up front about the limitations of their work and any potential negative societal impact.

5. **Ethical concerns:** If you believe there are ethical issues with this paper, provide some details of your concerns. Some aspects to consider are:
    a. Discrimination / Bias / Fairness Concerns
    b. Inappropriate Potential Applications & Impact (e.g., human rights concerns)

c. Privacy and Security
d. Legal Compliance (e.g., GDPR, copyright, terms of use)
e. Research Integrity Issues (e.g., plagiarism)
f. Responsible Research Practice (e.g., IRB, documentation, research ethics).

6. **Soundness:** Please assign the paper a numerical rating on the following scale to indicate the soundness of the technical claims, experimental and research methodology and on whether the central claims of the paper are adequately supported with evidence. Justify your response.
    - 4 excellent
    - 3 good
    - 2 fair
    - 1 poor

7. **Presentation:** Please assign the paper a numerical rating on the following scale to indicate the quality of the presentation, justifying your response. This should take into account the writing style and clarity, as well as contextualization relative to prior work.
    - 4 excellent
    - 3 good
    - 2 fair
    - 1 poor

8. **Contribution:** Please assign the paper a numerical rating on the following scale to indicate the quality of the overall contribution this paper makes to the research area being studied, justifying your response. Are the questions being asked important? Does the paper bring a significant originality of ideas and/or execution?
    - 4 excellent
    - 3 good
    - 2 fair
    - 1 poor

9. **Rating:** Please provide an "overall score" for this submission. Choices:
    - 10: Award quality: Technically flawless paper with groundbreaking impact on one or more areas of AI, with exceptionally strong evaluation, reproducibility, and resources, and no unaddressed ethical considerations.
    - 9: Very Strong Accept: Technically flawless paper with groundbreaking impact on at least one area of AI and excellent impact on multiple areas of AI, with flawless evaluation, resources, and reproducibility, and no unaddressed ethical considerations.
    - 8: Strong Accept: Technically strong paper with, with novel ideas, excellent impact on at least one area of AI or high-to-excellent impact on multiple areas of AI, with excellent evaluation, resources, and reproducibility, and no unaddressed ethical considerations.
    - 7: Accept: Technically solid paper, with high impact on at least one sub-area of AI or moderate-to-high impact on more than one area of AI, with good-to-excellent evaluation, resources, reproducibility, and no unaddressed ethical considerations.
    - 6: Weak Accept: Technically solid, moderate-to-high impact paper, with no major concerns with respect to evaluation, resources, reproducibility, ethical considerations.

- 5: Borderline accept: Technically solid paper where reasons to accept outweigh reasons to reject, e.g., limited evaluation. Please use sparingly.
- 4: Borderline reject: Technically solid paper where reasons to reject, e.g., limited evaluation, outweigh reasons to accept, e.g., good evaluation. Please use sparingly.
- 3: Reject: For instance, a paper with technical flaws, weak evaluation, inadequate reproducibility and incompletely addressed ethical considerations.
- 2: Strong Reject: For instance, a paper with major technical flaws, and/or poor evaluation, limited impact, poor reproducibility and mostly unaddressed ethical considerations.
- 1: Very Strong Reject: For instance, a paper with trivial results or unaddressed ethical considerations.

Submission Details

You are required to submit a single zip file named **GXY_RA1.zip**, containing (1) a PDF of the summary, and (2) a Word document of the same summary, following the same naming convention.

Follow this structure:

```
├── G01_RA1.zip
        └── G01_RA1.pdf
        └── G01_RA1.doc
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