

Paper Critique Assignment

CS 577: Natural Language Processing • Fall 2025

Deadline: October 10th, 11:59 PM EST

Assignment Instructions

Read one of the papers from the list below and write a critique. Limit your critique to a maximum of 2 pages. This assignment is individual, but you are encouraged to discuss the papers with your classmates.

Criteria

You are tasked with writing a review of a paper. Your critique should include the following components:

- **Summary (2 points):** Briefly summarize the paper, identifying its main research questions and summarizing its findings.
- **Methodology and Evaluation (3 points):**
 - Assess whether the experiments adequately address the research questions.
 - Identify any weaknesses in the experimental design, such as confounding variables the authors may have overlooked.
 - If the paper is theoretical, critically examine the assumptions required by the proofs. Are these assumptions reasonable and realistic? Are the proofs correct?
 - Evaluate whether the experiments or proofs adequately support the authors' claims.
- **Clarity and Presentation (2 points):**
 - Assess the readability of the paper. Is it well written?
 - Are the results presented in an accessible way? (You do not need to list all grammatical or spelling errors.)
- **Weaknesses (3 points):** Identification and discussion of methodological or theoretical weaknesses.

Paper Selection (Choose One)

- LIMA: Less Is More for Alignment
- What learning algorithm is in-context learning? Investigations with linear models
- Training Compute-Optimal Large Language Models
- On the Representational Capacity of Neural Language Models with Chain-of-Thought Reasoning
- LLM Dependency Parsing with Symbolic Rules

You should submit the assignment to Gradescope.