

## Paper Review Guidelines

Peer-review is how scientific fields advance. Paper reviews serve multiple purposes: they provide feedback to the paper authors; recommend publication to editors/program committee members; reveal to the author how well the reader understood the key contributions of the paper. In this class we will practice peer review by writing a review of the papers we read in class. Before coming to class students must complete a paper review using the following template.

Major Parts of the Review:

- **Summary of the Paper** (2-4 sentences). Briefly summarize the paper, describe what problem it is solving and its main contributions. This demonstrates your understanding of the paper and its context. (3pts)
- **Paper's Strengths** (bulleted list 1-3 items). A paper's strengths can vary depending on the reason it was written. For example a paper can be solving a problem in an important area, a paper can present a new tool or experimental framework and provide valuable experimental data, it provide a useful educational survey, it can be a position paper calling on researchers to work in the area, beyond the technical contributions a paper can be well written. (2pts)
- **Paper's Weaknesses** (bulleted list 1-3 items). List the weaknesses of the paper. This could include missing references, poor motivation, confusing or poor writing. On the technical side weakness could include limited novelty (problem is already solved); poor motivation (2pts)
- **Rating**. In a real review reviewers numerically rate multiple aspects of the paper (writing, novelty, experimental setup, overall). We are just looking for the overall rating. (not graded)
- **Comments to the authors** (1 paragraph, a real review could be a page). Often in this section the reviewer provides detailed comments that justify their rating of the paper and explain in more detail the strengths and weaknesses listed. Some reviewers will also provide suggestions on how to improve the paper. For the assignment you can either provide more traditional feedback or write a paragraph suggesting follow-on work or put the paper in historical context. (3pts)
  - Option 1 Traditional Review: justify the rating of the paper and provide suggestions to the author. Examples: Were the experimental methods and results convincing? (not applicable to every paper) Do you disagree with any of the paper's significant assumptions, unsubstantiated statements, or unjustified conclusions?
  - Option 2: Future work: what would be the next step or extension to the work, explain in detail and describe how you would approach it?
  - Option 3: Historical Context. If this is an older paper, did the author's predictions come true? What would need to change to adapt the ideas to modern applications and technology?

## TEMPLATE FOR CLASS (ABRIDGED VERSION OF A REVIEWER TEMPLATE)

==+== A. Paper summary. Brief summary of the paper and major contributions (2-4 sentences)

This paper studies the performance of different implementations Fibonacci algorithm in C, Go, Python and Perl. Both recursive and dynamic algorithms were studied.

==+== B. Strengths

==-= What are the paper's strengths? Just a couple sentences, please.

==+== C. Weaknesses

==-= What are the paper's weaknesses? Just a couple sentences, please.

==+== H. Overall merit

==-= Choices:

- ==-= 1. Reject: This paper should not be in the program
- ==-= 2. Weak reject: I would rather this paper not be in the program
- ==-= 3. Weak accept: Above the bar, but I'm not super excited
- ==-= 4. Accept: Solid paper that I will champion
- ==-= 5. Strong accept: Potential nominee for best paper award

==-= Enter the number of your choice:

==+== J. Comments for author

==-= Please provide detailed and constructive feedback to the authors.

==-= Write one paragraph choose one:

==-= 1) Traditional Review; 2) Describe future work; 3) Put paper in historical context