CSCI 2952-Q: Robust Algorithms for Machine Learning (Fall 2023)  
Paper-Reading Presentation Guidelines

Objectives.

1. Read and present a research paper.
2. Upload a recorded video presentation that is at least 15 minutes.

Teams and Papers. The instructor will provide a list of papers. Each paper will be presented by a group of 1-2 students. All students in the same team will receive the same grade for the paper-reading presentation.

With the instructor’s approval, you can present a research paper that is not on the provided list (e.g., a paper related to robustness from recent ICLR, ICML, or NeurIPS).

Submission Instructions.

- Submit a publicly accessible link to your recorded presentation in a Google spreadsheet.
- The length of your video presentation should be at least 15 minutes per student.
- All recorded presentations will be shared with the class and possibly future students.

Important Dates.

- Oct 2: Decide which paper to present.
- Oct 23: Submit your presentation video.
- Nov 13: Watch and rate all presentations (optional).

(All deadlines are 11:59pm on the due date.)

Grading. Paper-reading presentations will be graded out of 40 points (with up to 9 bonus points):

- Meeting the deadlines (20 points):
  - (10 points) Sign up for teams and papers by Oct 2.
  - (10 points) Submit your recorded video presentation by Oct 23.

- Recorded Presentation (20 points): We will run a lightweight peer-review process to grade your presentation. We will ask each student to watch and rate all presentations.

The following criteria are provided as guidelines. You can discuss/post your criteria on Ed.
- Explain why the topic and the problem being discussed are important.
- Provide a roadmap outlining what will be covered in your presentation.
- Define the problem clearly, along with any notations and terminology.
- State the main results of the paper and the necessary assumptions.
- Emphasize the most significant contributions and insights of the paper.
- Discuss background, previous work, and the current state of the field.
- Provide intuition or proof sketches for the key theorems/lemmas/algorithms in the paper.
- Make sure that your presentation does not have factual errors.
- Speak at a reasonable pace. Avoid reading from the slides.
- Include key points on slides. Avoid overly dense slides.
- Use figures and examples to make the theorems and proofs more accessible.
- Help audience unfamiliar with the field understand the main points of the paper.

- Peer review (up to 9 bonus points):
  - Each student can submit a score (16, 18, or 20 points) or declare conflicts of interest for each presentation. The instructor will participate as a reviewer (with twice the weight).
  - Scores will be normalized to have the same mean and variance across reviewers. The final score of a presentation is the average of the normalized scores of all reviewers.
  - (Top projects) The top 20% of presentations will receive 3 bonus points. The top 10% of presentations will receive 3 additional bonus points (so 6 points in total).
  - (Top reviewers) If your evaluation is among the top 20% most accurate evaluations (measured by $\ell_2$-norm of the difference), you will receive 3 bonus points.