Reaction Paper, CS 6241 Spring 2020

Instructor: Austin R. Benson
Due Thursday March 26, 2020 at 11:59pm ET on CMS

Assignment

The assignment is a "reaction paper" where you write a short (approximately 5-page) report that discusses, analyzes, and criticizes at least two recent research papers. You can work in groups of size 1, 2, or 3 for this assignment. The group does not have to be the same as the one for your final project.

The goal of this assignment is to get you thinking about research related to the ideas in the course, to stimulate ideas for final projects, and to provide additional preparation for the final project in the form of critical analysis of research papers.

Paper selection

Select *at least two* related papers that are relevant to the course material (broadly construed). The papers do not have to be developing numerical methods; instead, they could be applying numerical methods to a particular problem in which you are interested. However, make sure that you select at least two papers that are fairly recent (say, from the last 5 years).[1] Remember that one of the goals here is to help you think about ideas for your final project, which is a research project.

[1] Some example papers that you could select are here: `https://docs.google.com/document/d/1pUcO2XNCWWMghDIMPa-0_hNxUrt4N3tWvJgSAfoWF0s`.

Reaction paper

Write an approximately 5-page *reaction paper* to the papers you select.[2] Your reaction paper should (i) summarize the technical contributions of the papers; (ii) explain how the papers are interesting and related to the course; and (iii) critically analyze the papers. Here are some questions to help get you started with critical analysis:[3] What are the limitations or weaknesses of the research and how could these be resolved or improved? Are the methods well-motivated and the assumptions reasonable? Are there particular domains or datasets where the approaches would work well or work poorly? Do the experiments clearly demonstrate the benefits of the proposed methodology? How could the research be extended?

[2] Please do not worry about the exact length or formatting.

[3] These questions are neither prescriptive nor exhaustive.

Preparation & submission guidelines

Typesetting. Your reaction paper should be prepared with LaTeX.

Collaboration. *You can work on and submit your reaction paper as a team of size 1, 2, or 3.* Your team does not need to be the same as for your final project, but it can be. Please submit one reaction paper per team but include all of the team member names and NetIDs on the submission PDF (CMS has a group submission mechanism).

Academic Integrity. You are expected to maintain academic integrity in the course. Failure to maintain academic integrity will be penalized severely. Plagiarism is a form of academic misconduct, so make sure to provide proper citations. Cornell has a number of guidelines on plagiarism.[4]

[4] https://plagiarism.arts.cornell.edu/tutorial/index.cfm

Submission. Your approximately 5-page reaction paper should be submitted as a single PDF and include the names and NetIDs of the members of your team. Your submission should also clearly state the papers to which you are reacting.

Submit your PDF on CMS.[5] Please use the group submission mechanism on CMS if your team is of size 2 or 3.

[5] https://cmsx.cs.cornell.edu