CS2952-F: Info about paper reading and presentations.

1 Paper Review

Reading research papers and writing critical reviews is requires a different approach to reading and analyzing the paper. If you are unfamiliar with reading research papers, you should start by reading the following two guides to reading papers.

- How to Read a Paper
- How to read a research paper

As you read the paper, you should try to identify:

- The observations/insights which motivate the system design. These observations/insights could be about the hardware, the applications or expected users. For example, GFS was build on the observations that most workloads were large append-only workload with with random reads. This observation meant that GFS was optimized for these workloads. In particular, it could not support random writes.

- The assumptions which helps the paper select between different design choices. For example, there is an assumption that the system is build from commodity devices which fail frequently. Thus, GFS selects design choices to ensure that the system is able to self-recover from failures.

- The limitations which arise due to the selected design choices. In general, system perform well under come conditions but not others. For example, GFS is unable to support random writes.

- You components of the system and their design.

As you write your review, you should focus on providing:

- a concise summary of the problem statement, motivation, and system.

- a list of the observation/insights, assumptions, limitation

- a set of realistic future extensions to the paper by either: (a) addressing the limitations, (b) changing the assumptions to make them more realistic, or (c) modifying the insights to alternative insights (for example, insights for GFS are different from insights for DynamoDB which results in different designs).

The grades for the summaries will be based on:

- Completeness and conciseness
- Insightfulness of the future extensions/limitations/assumptions
- Clarity of the summary
2 Paper Presentations

As you prepare the presentation, you should read all the resources for the specified class. As you read the resources, identify the common theme across them and also determine the differences as well as why the differences exist. You can find tips on making a good presentation here.

The grades for the presentation will be based on:

- Clarity of the presentation
- Preparedness of the presenter
- Completeness of the presentation
- Ability to tackle Q/A

In general the presentation should have the following components:

- Motivation (2-4 slides): providing a global motivation for the common problem
- Thesis Statement (1 slide): a discussion of the high level problem which is common
- Overview (1 slide): discussion of the high level differences between the resources
- Approach-1 (10 slide): discussion of the observations, insights, design, and 1 slide summary of eval
- Approach-N (10 slide): discussion of the observations, insights, design, and 1 slide summary of eval
- Comparison (2-3 slides): Discussion of the differences and the impact of these differences.
- Open Questions (2 slides): addressing student shared questions.