Highly Dependable Systems (2023-24)

Paper presentations

In this component of the course requirements, each group will present a recent research paper, and the students in the group will lead the ensuing discussion. Paper presentations will take place in the following dates:

TP - March 20, during lecture (15:30 to 17:30).

AL - March 18, before and during lecture (8:30 to 11:30).

Logistics

You will work using the same groups as for the course project. Please sign up for a paper by choosing either from the proposed reading list or by sending email to the course instructors with your own proposal for approval. In each campus, different groups will have to choose different papers, on a first come first serve basis. The reading list and sign up form are available in the following link. (Please select the paper you want to present and be mindful that each group must select a paper from the campus the group is registered in).

https://docs.google.com/spreadsheets/d/1oq13yegDxsABL1t8gfwUB5zBebc3V7zGgEph_QCh-NE/edit?usp=sharing

Presentation format

The presentation must not exceed 5 minutes, roughly equally divided among all member of the group, followed by 1-2 minutes of discussion, led by the group members. The presentation should include the following three main parts:

- Summary
- Review
- Discussion points

Please see the appendix for general advice for organizing your presentation.

To avoid delays in trying to make the projector work, we will use the instructor's laptop, and we will open a form in fénix to upload your PPT or PDF presentation.

Evaluation criteria

You will evaluated based on the following criteria:

- Quality of the presentation (slides and delivery)
- Quality of content, namely the critical analysis of the work
- Quality of the discussion, and the way your group handles the follow-up questions.
- Important note: the 5-minute time limit is strict. **For every extra minute or fraction thereof, you will be deducted 1 point** (out of 20) in the paper presentation grade. Make sure to practice before presenting to get the timing right. Example of a talk with a good use of 5 minutes: https://www.youtube.com/watch?v=w1vGb0X0SUQ

Appendix – Advice for organizing your presentation

Part 1 – Summary

This part should not exceed 3½ minutes of your presentation. It should cover the following aspects:

Part 1.1 – introduction / motivation

- State problem definition in a clear, crisp way
- Motivate relevance and difficulty of the problem
- Sometimes summarize key ideas and contrast to main existing work
- Explain what are the main contributions
- (Roadmap can provide a nice transition to the rest of the presentation, though time constraints may preclude it.)

Part 1.2 – main body / details

- Core of the presentation
- Most important hint: focus on the "why" before explaining the "how"
- Biggest challenge: finding the right level of abstraction
- Sometimes you need to choose one key technique and only briefly mention others
- Finish with an evaluation / discussion of the results

Part 1.3 – related work

- Detailed analysis of existing solutions often omitted for time constraints…
- Still, it is important to:
    - highlight what's new
    - provide background on solutions evaluated in the experimental study
    - (and be ready to answer questions on other related work during the Q&A session)

Part 2 – Review

This part provides a critical assessment of the contributions of the paper, as if you were determining whether to accept or reject a paper to a conference/journal, and trying to convince the other members of the program committee (or in this case, the other classmates) of your opinion. Reviews are also important to convey feedback to the authors, so it is important to be constructive in this part of your presentation.

Typical structure of a review:

- Summary of the paper, state the contributions (can omit this from the presentation, given that it was covered in part 1)
- Positives
- Negatives
- Specific comments (elaborate on the positive and negative points)
- Conclusion (overall assessment, accept or reject)

Specific comments should cover most of the following:

- Novelty
- Writing quality
- Technical soundness
- Unaddressed issues
- Insights
- Likely to generate interest/discussion?

It is also important to try keep in mind the following:

- Reviewers are in a position of power: use it cautiously and in a fair way
- Always try to be constructive
- Still, raise all the concerns
- acknowledge your own limitations, namely regarding expertise
- Bear in mind that you might have misunderstood the ideas

Part 3 – discussion points

You should conclude the presentation with a set of open questions, directed to the audience, covering points that might generate an interesting discussion. These may include, for example, the following:

- Research questions that this work opens or did not address
- Practical applicability of this work
- Assumptions that may be more difficult to hold in practice
- Key ideas that may be applicable in other settings

Final advice

As general advice, your presentation should:

- Identify the main ideas
    - Focus on differentiating aspects vs existing work
- Not overload with details
    - Motivate subsequent reading, ease comprehension
    - Do not alienate audience
- Be structured in distinct parts
    - Clearly identified, each part with its clear own goals, fluid transitions.
- Take a top-down approach
    - Always provide the high level context first, before delving into details