

CS 521/621

Paper Presentation and Summary Write-Ups

Each student has selected one or two papers to present in class, in groups of 2–4 students. Each student will also submit a paper write-up for each paper he or she presents.

Your tasks

Each paper has a group of 2–4 students in charge of it. For the paper you are in charge of, you have to:

1. Write an about 2-page summary write-up and questions document.
2. Prepare and lead a 20-minute, in-class presentation and discussion.

The written description **and** the presentation must **each** contain:

- What research question, or questions, does the paper answer. What is its contribution? In other words, what is known as a result of this work that was previously unknown? Here is an example for one of my [papers on detecting collaborative conflicts](#):

Research questions:

1. How frequently do conflicts — textual and higher-order — arise across developers' copies of a project?
2. How long do textual conflicts persist?
3. Do clean merges devolve into conflicts?
4. What information could developers use to reduce the frequency and duration of conflicts?
5. Does making speculatively calculated information about collaborative conflicts available to developers help reduce these conflicts' frequency or persistence?

Contributions:

1. An analysis of nine open-source systems' development histories for frequency and persistence of collaboration conflicts. Conflicts (1) are the norm, (2) persist, on average, 3 days, and (3) are higher-order 33% of the time.
 2. A new technique called *speculative analysis*, that anticipates actions a developer may wish to perform and executes them in the background to inform the developer and prevent mistakes.
 3. Crystal, a speculative analysis tool, that predicts and helps avoid collaboration conflicts.
- What is the key idea presented in the paper? For example, for the speculative analysis paper, the key idea is that if a tool can automate a large number of actions a developer might perform, then that tool can pre-compute the consequences of those actions and warn the developer of possible mistakes. Explaining the key idea will often require a high-level diagram.
 - A simple example that illustrates how the new technique works, and why previous work fails. **This is probably the most important thing you can do to explain research to someone.** Think of a simple example of how the technique would be used. Make it concrete. For example, if the technique works on code, come up with an *extremely small* and **simple** piece of code, and show what the technique does on it, and what the benefits are.
 - A summary of the evaluation. Describe what the authors did to answer their research questions. What was the experiment? What data did they use? And what were the findings (some may already be covered by the summary of contributions).

- A list of **no fewer than five** discussion questions that you will bring up at the end of the presentation for the audience to discuss with you. These questions may cover things that were unclear, such as “I worry that this technique will be so computationally expensive that users simply won’t run it. How would we evaluate this aspect of the work to address this concern?” Another good idea is to consider how this work can be used in other domains. For example, if it’s an automated test generation technique, can you use it to generate use case diagrams? Your write up should have partial answers to these questions. During the presentation, you will include them orally, after soliciting others’ ideas and answers.

Deliverables

- If you are doing a research project:
 - Do one paper presentation and a write-up for that one paper.
- If you are **not** doing a research project:
 - Do two paper presentations and a summary write-up for each of those papers.

You must submit your slides and write up, via email to brun@cs.umass.edu, at least **24 hours before your presentation**. So by 10:00AM the day **before** you present. This submission will consist of:

- (1) a single write-up per group, and
- (2) a single copy of the slides you will use to present.

Put on each document all the students’ names who contributed to the write up and slides.

And, of course, you will give the 20-minute presentation in class.

You may use any resource you wish in this assignment but you must list your collaborators and cite all your sources. Failure to do so will result in a grade of 0.