

Paper presentation guidelines

For this assignment you will read and present two papers to the class. We should meet and agree to the papers you have chosen by 4/6. Paper presentations will be on 4/22 and 4/27.

The goal of this assignment is twofold. First, you should get some experience reading and understanding research papers in general, and specifically research papers related to the performance modeling concepts taught in class. Second, you should practice summarizing new material in a way that is understandable to the class during a 30 minute presentation. **You will have 30 minutes to present your papers however you like.** Most people prefer to either use powerpoint slides, write on the board, or do a combination of the two. You will be responsible for practicing your presentation to make sure it is understandable and fits within the time limit. You should plan on

- Asking questions of your audience during the talk (all good talks do this!)
- Taking questions from the audience during the talk
- Taking a few minutes of questions from the audience after the talk

The exact format of the talk is somewhat up to you, but I recommend the following template which is generally followed by most technical talks at computer science conferences and seminars.

- **Begin by motivating the problem.** Without diving into technical language, describe the setting of the problem at a high level and explain why this setting is important. Then explain the problem at a high level and explain why the problem is important. (3-5 minutes)
- **Why is the problem hard, and why hasn't it been solved by prior approaches?** In other words, why was a whole new research paper required to solve this problem? What was novel about this solution? (2-4 minutes)
- **You can now start defining technical terms or techniques needed to understand the paper.** This can include any background necessary to understand what is done in the paper. (about 5 minutes)

- **Now is the time to present the main technical ideas from the paper.** Note, in a 30 minute talk *this usually does not mean a line-by-line walkthrough* of proofs or algebra. You may need to gloss over more minor results or lemmas. Try and pick the one or two most important, novel contributions of the paper and explain why these are interesting. You can introduce notation and technical language here, but make sure you are defining terms you want to use. (10 - 15 minutes)
- **If you have time, you can now discuss some of the larger impacts of the work.** Did this result serve as the basis for important future work? Did real-world systems adopt these ideas? Maybe the idea didn't end up working out the way authors anticipated it would. (as needed, under 5 minutes)
- **Give a brief concluding summary** to remind us of the main idea of the paper. (1 - 2 minutes)

Your talk will be evaluated on whether you clearly present material related to the above points in the time allotted.

A word on reading papers. One of the goals of this assignment is to practice reading papers. Reading research papers is a skill that you will learn over time. When you first start reading research papers, it is easy to be overwhelmed by the level of detail in the papers, unfamiliar terminology, and the references to other papers that you are not familiar with. **The secret to reading papers is figuring out what details are crucial to understanding the main idea of the paper**, and what can be ignored. For example, you probably do not need to read the majority of the papers cited in the related work section of a paper in order to understand the main message. However, if there is a central theorem or technique in the paper that is used to prove all the main results, you should probably understand this more detail so you can explain it.

As always, if you have questions, come to office hours!