

CS5296 Spring 2020

Paper review:

- You will write **two** reviews for two papers chosen by yourself from the list: <https://henryhxu.github.io/5296.html>. The papers need to be from two different topics, not the same topic.
- Each review is worth 10 points out of your course grade (maximum 100).
- Deadlines:
 - 1st review: **23:59:59, March 6, 2020, HKT**
 - 2nd review: **23:59:59, April 17, 2020, HKT**
 - To submit: Go to Canvas->Assignments, under "Paper reviews", click on the respective item and upload your review before the deadline. The entries will automatically close after the deadlines.
- Formatting requirements:
 - A4 paper, Times New Roman font, 12pt, single column, default line spacing.
 - You can use Microsoft Word, Apple Pages, Google doc, or LaTeX to write the review.
 - The submission has to be a **PDF** file. Canvas does NOT take other file format. All editors mentioned above can save into pdf format.
 - File name should be: **StudentID_review1.pdf, StudentID_review2.pdf**
 - Minimum **2 pages**, maximum 3 pages.
 - *****Failure to comply with these requirements will directly result in a 2-point deduction out of 10.*****

How to write a paper review:

In general, your review should have the following components

- Paper summary:
 - State the **complete title of the paper** at the beginning of the review.
 - Use the first page to summarise the paper on the high level. Try to answer the following key questions:
 - What is the problem this paper investigates, why is the problem important?
 - What has been done to solve this problem, i.e. existing work? What are their limitations?
 - What is the new solution/idea this paper proposes? How is it different from existing work? A high-level description is good enough.
 - What are the important technical challenges this paper overcomes, in order to realise their new idea? You can just describe the high-level idea and high-level design here, you don't have to go to the details of algorithms.
 - What kind of evaluation is performed to assess the new solution? How is the performance?
- Discussion:
 - Use the second page (and the third if you want) to present a more detailed discussion or analysis of the paper. This is like providing a critique to this piece of work. Try to cover the following aspects:

- Key assumptions. What do you think about the assumptions or the simplifications the authors make in the paper? Are they reasonable in your opinion, why or why not?
- Design choices and the tradeoffs. Typically people make a few really important design choices to design a software system, such as distributed vs centralized, a clean-slate approach vs ensuring compatibility with existing interfaces, etc. These design choices represent different points of the tradeoff curves, such as efficiency vs fault-tolerance, scalability vs complexity, etc. Try to analyse the design choices made by the authors in the paper, and discuss the tradeoffs these imply (e.g. the authors try to achieve high performance for networking, so they decide to design a clean-slate TCP stack with a new interface which however is not compatible with existing socket interface, that's a tradeoff)
- Limitations/weaknesses. Any important limitation of the work? What're the things it doesn't consider, what're the scenarios where it wouldn't work or wouldn't work very well? Sometimes the authors explicitly mention the limitations of their work in the paper (usually near the end), but most times you have to understand the paper and figure out by yourself.
- Questions or confusions you have about any particular aspect of the paper. List the questions you have in your mind when reading the paper. This can be as detailed and as technical as you want.
- Possible improvements. Think about possible ways to improve the work, or interesting future directions that are inspired by this work.

Grading:

We will use the following to grade your reviews.

- Format (2 points):
 - Follow all the formatting requirements explained above and 2 points will be given.
 - **Any violation of the formatting requirements explained above leads to zero points for formatting.**
- Content (8 points):
 - Paper summary (3 points), depending on the coverage and accuracy of your summary.
 - Discussion (5 points), depending on the breadth and depth of your discussion (i.e. your thinking), as well as quality of your writing.
 - Writing matters. Avoid typos and grammatical mistakes. Break a sentence properly. Break a paragraph properly. Follow all the rules and expectations for formal English writing.
- Plagiarism:
 - Write it yourself using your own words.
 - We will run plagiarism tests for all reviews. In the past, we have noticed that some students copied or used paragraphs directly from the paper, or from online sources (both in English and Chinese). This is strictly prohibited. Any form of plagiarism will result in zero marks for the review at least; there may be further penalty.

Tips and references:

Consult the following resources

- On paper reading:
 - How to Read a Paper. S. Keshav, 2007. <http://ccr.sigcomm.org/online/files/p83-keshavA.pdf>
- On English writing:
 - The Elements of Style, Fourth Edition. W. Strunk Jr., E.B. White, 2019. <https://www.amazon.com/Elements-Style-Fourth-William-Strunk-ebook/dp/B07NPN5HTP> (My personal recommendation, a must-read for writing. Its Kindle version is just \$2.99USD now.)