4511W, Spring-2020
WRITING ASSIGNMENT 3:
Assigned: 03/18/20 Due: 03/23/20 at 11:55 PM (submit via Canvas) <u>Submit only pdf files</u>

Written (1-2 pages)

It is best if you do this writing assignment related to your project, but this is not technically required. For this writing you need to find at least three technical papers relating to the same general subject and do a comparison between them. The subject may be of your choice, but there must be some similarity between the papers. You may either focus on a narrow subject (different versions of A*) or a wide subject (different methods to solve the TSP problem). As you will have to do a light literature review (i.e. this sort of thing) for your project, it would save time if you picked three papers relating to the project you want to do. The focus on the paper should be the algorithms and general strategies, not the domain it applies to. For example if your project is related to solving Tetris, I would not only look at papers that mention "Tetris", but rather the general algorithms that can be used to solve Tetris (even if those papers don't contain the word "Tetris"). In your final project you will need to have both similar algorithms along with related but not chosen algorithms (e.g. you could solve some problem with game theory or minimax, you should discuss both in the final project regardless of which your experiment actually tests).

You need three papers need that are "technical peer-reviewed" papers and cannot be blog posts or websites. Wikipedia does not count, though you can typically look at the references on the bottom which often link to technical papers. Another option for finding these are through <u>https://scholar.google.com</u>, which is a google search specifically for academic papers (anything you find on here should be peer-reviewed... but sometimes webpages slip through). The "writing3sample.bib" lists possible conferences/journals at the top, which you can also search through. If you have any questions regarding whether a source is acceptable, ask a TA or instructor (me). If you get stuck at a pay-wall website, typically the UofM pays for access through these (though you may often find a pdf publicly available if you click "All x versions" below the link & description). Instructions on how route your browser through the UofM to get access is described here: <u>https://www.lib.umn.edu/howto/tools/bookmarklet</u>

After finding and reading at least three articles, you need to write (1) a short description of what problem you are trying to solve, (2) a paragraph summarizing the key points of each article, then (3) analyze the differences between the papers and critically think about which approach might be most appropriate to your problem. Here are some sample ways in which to compare them (**this is just a list of possibilities, you may compare them however you think is appropriate**).
- Accuracy
- Speed
- Memory
- Type of problem addressed
- Parallelize-able
- Application setting
- Assumptions for the problem

Note: You should avoid quoting the articles directly and write most of your analysis and summary in your own words.

You need to properly cite your sources using bibtex (if you use google scholar, they provide a bibtex citation for you). See the "writing3sample.tex" and "writing3sample.bib" for examples on how to do

this. You should cite whenever you are referring to some aspect of their paper and not your own thoughts. These citations can either come at the end of a sentence, in the middle right after the word that you are taking from the paper (e.g. "Tetris can be solved using CSPs[1], search techniques[2] and many other methods.") or used as a noun (e.g. "In [1], Poker is formulated as a zero-sum game.") (though normally not the first word in the sentence). If you are using overleaf, you will have to make a second file in your "Project" for the bib file.

(See comments at atop of "writing3sample.tex" for how to compile latex with a bibliography)

Grading
Latex: Required

3 references properly cited 30% (10% per)

Summary of references 30% (10% per)
-- 15% writing clarity (5% per)
-- 15% succinct summary (5% per)

Analysis of similarities/differences 40%
-- 20% writing clarity
-- 20% depth of analysis