

# CMSI 620T

## DATABASE SYSTEMS GRADUATE TUTORIAL

Fall 2022

### Assignment 1003

### Research Paper Directed Draft I

With your research survey as a starting point and with the help of the feedback provided for that assignment, it's time to take the next step toward putting together a database research paper.

#### Choose three (3) areas of interest and find three (3) or more references for each topic

The initial research survey was meant to give you a starting point, and to introduce you to the lay of the land. Now it's time to dig a little deeper. We keep the magic number “3” here, and you can either go with the same three topics as before or pick new ones depending on how your interests have shifted since the start of the semester.

For each topic, find three (3) references that relate to it. These must be distinct from the Seattle report. You can reuse references found for the research survey or find new ones. Make sure to record their bibliographic information correctly and completely so that they get cited according to the relevant style manual.

#### Briefly summarize each reference then identify what is missing in those references

This may seem to be a tall order but it can be more straightforward than it seems: most articles will talk about lingering questions or opportunities for future work. *That's what's missing!* The whole purpose of the academic endeavor is for scholars to explore their area of interest and seek to advance the field; to do so, they provide their own contributions then look ahead to what should happen next.

Another form of “what's missing” may consist of *disagreements* across multiple sources. Or you may disagree with something yourself. That counts too.

#### Now the hard part: brainstorm on projects or lines of investigation that might help fill in those gaps

For each item that you identify as “missing” from a reference, think of a project or other course of action that might address that gap. You don't have to be concerned about whether the project is something that you can do...yet.

#### Package it all nicely

If you've been keeping score, to this point we are asking for:

- Three (3) areas of research interest in databases
- Three (3) references in each area, for a total of nine (9)
- One (1) aspect that is “missing” from each reference, for a total of nine (9)
- One (1) possible project that can fill in or advance that missing aspect, for a total of nine (9)

Do *not* submit these items as a laundry/bulleted list—instead, package it all into a cohesive paper. This type of work is typically called a “survey paper.” In computer science, there is a journal dedicated to such surveys; it's called (big surprise) *ACM Computing Surveys*. Yes, you should pick up a recent issue and look at some of its articles. This will give you ideas for how to put together your own scaled-down version of a survey paper.

- Do cite and list references *according to an established style manual*
- Do use your own words nearly *all the time*—the only time a direct quote is valid is when the specific wording of the quote substantially contributes to what you want to convey

#### Submission

Please upload a PDF of this reference-specific survey + brainstorming paper to the designated assignment on Brightspace.

#### Scoring

Ten (10) points will go to the selection and expression of the research areas and corresponding papers. 20 points each will go to the overall quality and execution of the nine (9) “missing” items and nine (9) brainstormed ideas for addressing them.