CISC 832

Advanced Database Management Systems

Fall 2016

Research Survey Paper

The research survey paper is an important part of this course. The paper is intended to demonstrate an in-depth knowledge of a topic covered in the course or closely related to the big data theme of the course. The paper should outline the objectives of the survey, justify your evaluation criteria and/or method of organizing the surveyed material, give an organized and meaningful presentation and analysis of the material and summarize the findings of your study and how the objectives are achieved.

Your paper should be based on three or more references taken from the literature. Remember the report is a "scientific" report and should not just be based on marketing literature taken off the Web. You need to have at least three scholarly articles as the basis for your survey. Look at the research papers used in class to get an idea of the structure and style of a scientific paper. Your paper should typically contain the following sections:

- **Introduction** – motivation for, and definition of, the topic or problem that is the focus of the paper, including how it fits within the scope of the big data theme of the course; the structure for the rest of the survey paper.
- **Method** – explanation of how the survey is organized; explanation and justification for the criteria used as a basis of the survey.
- **Survey** – examination of the papers/systems/techniques covered by the survey in terms of the criteria and organization explained above.
- **Discussion** – a discussion of the findings of the survey; a comparison of the strengths and weaknesses of the papers/systems/techniques covered; strengths or gaps in the research on the topic or problem.
- **Summary** – important lessons and conclusions from the survey.
- **References**

Some possible topics for the survey paper include the following: Energy-efficient Computing for Big Data; High Performance/Parallel Computing Platforms for Big Data; Programming Models and Environments for Clusters

and Clouds to Support Big Data; Algorithms and Systems for Big Data Search; Large-scale Recommendation Systems and Social Media Systems; Cloud/Grid/Stream Data Mining- Big Velocity Data; Big Data Security, Privacy and Trust.

Deliverables

Topic Proposal (5% of final mark) – Due Oct 14, 2016.

The topic proposal should be 2 – 3 pages in length. It should include a description of the topic or problem you will survey, why it is important, how you plan to organize your survey and an initial list of at least three references.

Survey Paper (20% of final mark) – Due Dec 9, 2016.

The paper should be written in research paper style. The report should be 8 - 10 pages be formatted in the two-column ACM proceedings format, using one of the ACM SIG Proceedings Templates.

See the rubric for the criteria used to evaluate the paper.