CIS 640: Writing in Computer Research

Assignment 1: Review of a computer science research paper (see course website for the list of papers from which you will choose your paper to review).

DUE: Hardcopy of first draft due January 14 in class. (You will receive feedback by Monday January 19). Hardcopy of final draft due January 21 in class.

Goal: the purpose of this assignment is for you to practice two skills: critically reading a computer science research paper and summarizing the essence of the paper into a short, well-written review. Your target audience for this assignment is computer science researchers but not necessarily experts in the research field of the paper you are reviewing.

Guidelines: Maximum two pages, single-spaced, 11 pt, 1” margins. The paper must follow professional standards for format and citation. It must have correct spelling and grammar. If you are not a native speaker of English, I will allow minor mistakes in grammar. About 40% of the paper should describe the content and about 60% should be your analysis and critical comments on the paper.

Caveats: Because your target audience is a general computer science researcher, do not use too much area-specific jargon, nor include too much technical detail. Important: do not just repeat the content without understanding the paper. Do not copy sentences directly from the paper unless there is a very important reason to do so – in which case, you must correctly cite the copied text.

Below are some questions to guide you in writing your review – compiled by Prof. Sarah Douglas and Prof. Virginia Lo. Do not just write answers to these questions. They are just here to stimulate your thinking. You need not cover all these issues and you are free to address other topics you feel are important to include.

State what the reading is about (40%)

- What is the research problem addressed in this paper?
- What is the problem statement, or the hypothesis of the author?
- Why is the problem important?
- What is the method or technique the author proposes or has developed to address the problem or confirm the hypothesis?
• Describe the results obtained. Note these could range from a new algorithm, evaluation through simulation or empirical experiments, new technique or hardware or software artifact.
• What is the author's evaluation of his or her own success?
• What does the author state as his or her key contributions?
• What future work does the author intend to do?

Critical Analysis (60%)
(Since the paper for this first assignment may be outside your research area, do the best you can to evaluate the significance and scientific merit of the work.)

• Does the paper make an important contribution to the field?
• How innovative or unique is the work reported in this paper?
• Explain how the author's research topic fits into research by other people in the same field.
• How is it related to other areas of this field and computer science in general?
• Do you think the author's methods were sound? Explain.
• Were you convinced by the author’s results? Explain.
• What could be improved in the research done by the authors?

• Overall, was this paper well-written? Were you able to understand most or all of the paper?
• Was the paper well-organized? Flow logically?
• Were figures and graphs helpful and well-presented?
• Do you think this paper deserves a “Best Paper Award” at the conference it was published in?

• Overall, what did you like best about this paper?
• What did you like least?