ECE560: Computer Systems Performance Evaluation Project Description

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1 Overview

This project is designed to allow everyone in the class to pursue technical areas that are relevant to the class and are of particular interest to the students. In addition, the project is an opportunity for the students to learn more about a particular topic than can be presented in the class lectures. This project could be <u>a performance</u> <u>study of some new computer-based system or architecture idea, a performance study of an existing</u> <u>computer/machine/system, detailed performance comparisons of different design alternatives, or some other</u> <u>appropriate topic of your choice</u>. A list of possible project ideas can be found in the course website (Project section). The project should be started immediately, and it is expected to continue throughout the semester.

2 Required Work

The project will be a *team* effort with each team consisting of two students. Project teams should be set up within the first week of the class. The work required in the project consists of those items listed in the following sub-sections:

2.1 Proposal

While the purpose of this project format is to allow everyone to pursue a topic of interest, it is necessary to ensure that all topics are important to the technical content of this class. In addition, I want to make sure that similar amounts of effort are required for various projects. Consequently, each team must submit a written and well-organized proposal on the project topic via email by February 23 (Friday).

The 1-2 pages proposal should clearly describe what you want to do for the project. The proposal should include at a minimum a description of the problem, and how you intend to solve it (any investigation, development, analysis, simulation, or experimentation to be conducted). Be sure to include the names of your team members, a tentative title of your project, and potentially relevant references. Please refer to *Proposal Guidelines* for the suggested formats. Proposals will be reviewed and must be approved by the instructor.

2.2 Annotated Bibliography

The annotated bibliography is a list of papers that are relevant to your project. For each paper, you must give the complete citation, which includes names of the authors, title of the paper, title of the journal or conference proceedings in which it appeared, publication time, and page numbers. In addition, you must write a 30-70 word summary for each paper describing its contents briefly and how it is relevant to your project. This summary must not be a simple repetition of the paper's abstract. The goal of this annotated bibliography is to show that you have adequately researched the previous peer-reviewed work that has been done in the area of your proposed project. Be sure to include the names of your team members and the tentative title of your project. The deadline is March 22 (Friday).

2.3 Final Report

Each team should submit a detailed written report via email by April 19 (Friday). Please refer to Report Guidelines for the specific requirements.

2.4 Project Presentation

Each team is expected to give a 20-minute presentation, with time for questions and discussions. The time duration of presentation subjects to changes based upon the final enrollment in the class. I will let you know precisely how much time you will have for your presentation later in the semester.

Your presentation should include an outline of your project, an explanation of the specific system you are studying, a description of your performance evaluation methodology, a presentation of your results, and a brief summary of what you have learned from the project. Presentation should be self-contained, precise, and clear. Please refer to Presentation Guidelines for the suggested format.

Everyone in the class is expected to attend all of the oral presentations. I will take attendance at the presentations and will use this information when I compute your overall grade for the project. The presentation slides must be submitted in soft copy by April 22 (Monday). The scheduled dates for presentation are April 22 (Monday) and April 24 (Wednesday).

3 Time-line

Budget your time wisely for the project. Plan a timetable for your project and take pains to observe the deadlines.

- Project proposal due February 23 (Friday)
- Annotated Bibliography due March 22 (Friday)
- Project final report due April 19 (Friday)
- Project presentation slides due April 22 (Monday)
- Project presentation on April 22 (Monday) and April 24 (Wednesday)

4 Grading

The project will be graded based on the following items:

- 7% of the grade will be based on the quality of your proposal
- 8% will be based on your annotated bibliography and effective coverage of the related literature
- 45% will be based on the quality of your written report (including your demonstrated knowledge of the technical topic and your ability to understand applications of that knowledge). Multiple errors in spelling and grammar will detract the clarity of your report and will be graded accordingly. So, do use a spell checker. Verbatim copy should be avoided. Your report will be checked by SafeAssign, a plagiarism prevention tool. Also, you should explicitly acknowledge any sources of ideas used that are not your own; this includes other people, books, papers, web pages, etc. Academic dishonesty will be "rewarded" with a grade of ZERO. For more details, refer to Student Handbook:

https://www.umassd.edu/studentaffairs/studenthandbook/academic-regulations-and-procedures/

• 40% will be based on the clarity of your presentation, use of allotted presentation time, and attendance at project presentations.