

CS 537: A Guide to Computer Intelligence

Project Report Guideline

Your class project will contribute 25% toward your final grade. The goal of your project report is to explain your project sufficiently so that the reader can understand what the problem is and how you have solved it. The reader should be able to understand your methods without reading code.

There are five main parts in your write up:

- Problem description,
- Important existing solution(s),
- Description of your solution,
- Results,
- Analysis and Conclusion.

The problem description should introduce the problem, and point out the essential parts of your problem with respect to its computational aspects. Existing approaches to the problem should be outlined in order to put the proposed solution into perspective. The description of your algorithm (if any) should be in prose and in pseudocode. In addition to explaining your approach, the prose should help clarify why you made important choices. The pseudocode should be at a high enough level to be easily and quickly read, yet it should illustrate the important points of the algorithm. Excessive details will be counterproductive, and will indicate that you have not thought enough about what the important issues are. The results should be brief, and, if appropriate, should compare with some known results. The analysis and conclusion should be a retrospective on your approach toward solving the problem, especially what you would do differently if you were to do it again. For example, was the architecture chosen appropriate? Were there parts of your algorithm that seemed like a good idea when you started, but turned out to be not working well? Were there ideas that you tried and dropped? Your project report must be self-contained, including a short abstract and a list of references. If you don't know the format of technical papers, read any journal articles in *IEEE Trans.* or *ACM*. Keep in mind that you have to give credits to all papers you referenced in your report. Your project report must be type-written using any of your favorite word processing or typesetting package. In general, your paper is expected to have 12 to 18 double-spaced pages, without counting the program code. Here is the breakdown about how will your term paper be graded.

- Technical content: 25%
- Paper organization: 10%
- Clearly stated background and motivation: 10%
- Your own efforts (contribution, criticism, comparison, etc.): 30%
- Satisfactory English: 10%
- Quality of presentation: 15%

Final Comments

You have to submit a two-page project proposal including a short description of your topic and a list of references to me by March 10. Your project report is due on Dec. 9, 2011. In class presentation is required and will be scheduled later.