

## Class Project

### **DUE: 3/19 and 3/21 (Electronic turnin of a project report required)**

- You can choose any topic to work on as long as it is related to this course.
- A formal proposal is not required. However, if you are unsure of the topic, please discuss with me first.
- This can be a programming project (up to a 3-person team is allowed). Given that CSIL's computational facility is inadequate, I will also allow an in-depth research survey and presentation without coding (a 1-person team only).
- The project presentations will be for 20 to 25 minutes over two days: 3/19 and 3/21.
- The deadline for submitting your final report (and supporting documents such as codes and data sets) is 5pm, Sunday, March 25<sup>th</sup> (electronic turn-in required at proj@cs281b).
- Hint on the project presentation and report:
  - The presentation is limited to 20 to 25 minutes (20 for presentation + 5 for Q&A).
  - The report does not have to be very long, less than 5 pages usually. There is no need to review the math (e.g., don't tell me how CNN works). If the technique(s) you are experimenting with are covered in the lecture or listed under the lecture notes (even those I do not have time to go over), you can assume that I already know enough to follow your work. Even though you are using a new technique, you should just cite relevant references.
  - Instead, use your report to tell me what you did. For example: What data sets did you use? Why did you choose those data sets? Why were they interesting/relevant/challenging/etc? Why did you select a particular classification/regression technique? How did you tune the performance of your classifiers? What kinds of experiments have you attempted? Did you compare multiple approaches to determine their relative merits? What conclusion could you draw from your experiments and how do you show that your conclusion is correct and generalizable? What did you learn from your experiments?
  - In summary, the report is to impress upon the reader of your work. For a graduate class, the novelty of your approach, amount of work, thoroughness of the experimental procedures, and the correctness of your analysis all count.
  - If you are doing a literature survey, do not just summarize the papers. I am looking for graduate-level insight into a collection of papers, some comparison of different approaches and their pros and cons, relation to the state-of-the-art, possibilities of extension, etc. It is important that you convey the right amount of intuition in your presentation so that the audience can understand the techniques. I hope that you have gone to a large number of colloquia. Think back which speaker captured your attention and which one tuned you off. Learn from your experience to give a talk that is suitable for the audience.