Instructions for Course Project

1 Project Proposal

Please submit your proposal by Friday 11/8 if possible but not later than Monday 11/13. Submission is by email to roni@cs.tufts.edu.

Please write two paragraphs per project proposal.

The first paragraph describes your data or application and the machine learning problem associated with it. The second paragraph describes what probabilistic model or algorithm will be used in this context (regression, classification, specific graphical model, etc).

I would like to see that the project is not “too hard”, that is, one can complete it within the allocated 4-5 weeks. I would also like to see that the project is not “too easy” meaning it requires a good amount of work and some investigation.

A project can be “application focused” meaning a major component of your work is devoted to collecting and representing the data, and different choices will be investigated within the project. A project can also be “methods focused”, meaning that a major part of the work is devoted to comparing, developing and evaluating some less well understood aspects machine learning methods.

Some project ideas or starting points for such are listed on the course web page.

If you have any questions, or want to discuss some ideas for your project, please email roni@cs.tufts.edu and we can either discuss by email or set up a time to meet. Please do so before the deadline so we can get you started on the project in good time.

2 Interim Project Report

Interim Project Report: 1 page. This report is due on Wednesday 11/29, in class. Only paper submission is needed for this report.

The report should discuss (1) what you have achieved so far, (2) any observations, difficulties or new opportunities relative to the original proposal, (3) roadmap for completion by 12/15.

3 Final Project Submission

Final project reports are due by Friday 12/15 12:00 noon. Both paper submission and electronic submission are needed for this report.
Please investigate the application, machine learning methods, algorithms, and so on as agreed in the proposal and run an experimental evaluation to the best of your ability/knowledge. Then write a report on the project. The best way to think about the report is as a paper submitted to a machine learning conference (ICML, NIPS, . . . ) or the relevant conference in the application domain.

The report should include a description of what you set out to do including the application and algorithms that were investigated. Please include details for anything which is not straight from the textbook or lectures. Please include a discussion of any insights, or difficulties, you found in this project, the conclusions from your investigation, and how you might continue the work (or redo the work if you were to start from scratch).

- You should submit the following items both electronically and in hardcopy:
  1. Your code for the project (please write clear code and document it as needed). In addition, please include instructions in case we want to compile and run your code.
  2. The report described above.

- **Please submit a hardcopy** in Prof. Khardon’s mailbox in the CS main office.

- **Please submit electronically using provide:** Put all the files from the previous item into a zip or tar archive, for example call it myfile.zip. Then submit using provide comp136 project myfile.zip.