Homework 4 - Project Proposal

Machine Learning - CSC 84020 - Spring 2012 - Prof. Rosenberg

Due April 4 at 11:59pm

Write a ~500-1000 word proposal for your Final Project.

The proposal should include, minimally, the following

• A description of the task that your experiment will perform.
• An idea for the classification/regression/clustering approach you will be taking. (This is not binding, but propose some ideas.)
• What data you will use for the experiment.
• Address the core challenges and limitations of the project. The core challenges should represent the most germane questions your project is attempting to answer. The limitations are those qualities that either limit the scope of the experiment, or make its processing difficult to execute.

Example Core Challenges and Limitations: (Note that this is meant as an example of the kind of information to include in Core Challenges and Limitations, not a full proposal.)

**Task:** Gathering demographic information from chat participants. This can be used to improve targeted ad delivery during or following chat.

**Core Challenges:** 1) Identifying age from chat transcripts. 2) Identifying gender from chat transcripts.

**Limitations:** Finding chat transcripts is difficult. Moreover, getting ground-truth information about a participants age and gender adds an additional data requirement that may be difficult to fulfill. If additional data cannot be found I will use chat transcripts between me and my friends. Since these participants don’t have a very large age range and are mostly male, the results may not generalize to a wider population.

• At least three papers that represent related work to the task that you are performing. Your proposal should summarize these three papers, and indicate in what ways your work will contrast with these. The papers should be included with your submission.
The proposal will be graded on the following criteria:

1. **Clarity:** Is it clear to a knowledgeable but uninformed reader, what you are planning on doing?

2. **Completeness:** Are all relevant details for the project described?

3. **Core Challenges:** Have you appropriately distilled the description of your project into concrete Core Challenges?

4. **Limitations:** Have you accurately described what qualities limit the impact of your experiment?

5. **Related Work:** Are the related papers actually relevant to this work?

6. **Summary:** Have you sufficiently summarized the related papers?