

Project Proposal

CMU 15-780: Graduate AI (Spring 2023)

Due: Mar 17, 2023 11:59 pm

The final project is an important part of the course, worth 30% of the final grade. A written report of your final project is due on May 1st, and you will also present your projects at a poster session on our last day of class, April 26.

To make sure that you have a plan to complete your project on time, we expect a project proposal submitted via Gradescope by March 17th.

You may do the project on any topic related to AI, broadly construed. The topic need not have been covered in this class. You may do the project alone, or in groups of up to three people. Projects with larger groups should have proportionately broader scope.

If you are actively doing research outside of this class (e.g., you are a Ph.D. student), your project can be *related to* your research but your project should not *be* your research. Concretely, your project should be something that you are doing specifically for this class, rather than something that you were doing anyway for research, merely repackaged. If you are in another course that has a course project, you may do related topics for the course projects (so long as the other course allows this as well), but you must point out in your proposal specifically what parts of your project you wish to count towards this course—those parts of your project should *not* be counted towards your project in any other course.

In the past, the best projects from students have sometimes led to publications in top conferences! However, this is not an expectation.

In general, you should structure your proposal and final report like a conference paper. Of course, your proposal will not have all the sections of a typical research paper, but your final report should. In particular, in your proposal, please include at least the following.

- A project title.
- The names and emails of everyone on your team.
- An introduction section, in which you introduce and motivate your project.
- A related work section, in which you should cite and discuss in detail any existing literature that is most closely related to your project topic, or that you will use in your project.
- A plan of work with a timeline.
- A detailed description of what you hope to have accomplished by the poster session on 4/26. Details should be at the level of concrete experiments you plan to run, which datasets/environments/tools you plan to use, or what theoretical results you hope to prove.
- A detailed description of what, if anything, you have already accomplished toward that goal.

Add your group members to your proposal submission on Gradescope.

There is no hard length requirement, but a complete proposal, including enough detail in all the items above, should be at least two pages in single-spaced format, and in most cases longer than that.

The proposal is not binding. You are free to deviate from your plan after submitting the proposal, or even to switch topics entirely, although the latter is not usually advisable unless the original idea completely fails.

The main purpose of the proposal is for you to receive some feedback on the choice of topic and scope of your project. The proposal will therefore be graded mostly on completion.

Your late days can be applied to the proposal submission, and if so, everyone on the project team uses up the respective late days.