

Project Proposal Instructions

Each team of one person (both default and custom) hands in one project proposal worth 4.5% of your grade. This document specifies what information you should include in your proposal – it applies to both default and custom projects. You should hand in a PDF document describing the following contents.

1. KEY INFORMATION TO INCLUDE

- **Title:** the title of your project (you can change this later)
- **Team member names:** List the names and @brandeis.edu email addresses of all of your team members.
- **Custom of Default Project:** Indicate which you are doing.
- **(Custom Kaggle project only):** If you chose the Kaggle project, write
 - The project page link
 - The link of the most voted notebook

2. PROJECT DESCRIPTION (1-2 PAGES)

In this section, you will describe what you plan to do for your project. It's okay if your project eventually evolves into something different. But your proposal should lay out a sensible initial plan. This section should answer the following questions.

- 1) **Describe the main goal(s) of your project.** If possible, try to phrase this in terms of a scientific question you are trying to answer – e.g., your goal may be to investigate whether a particular model or technique performs well at a certain task, or whether you can improve a particular model by adding some new variant, or (for theoretical/analytical projects), you might have some particular hypothesis that you seek to confirm or disprove. Otherwise, your goal may be simply to successfully implement a complex neural model, and show that it performs well on a given task. Briefly motivate why you chose this goal– why do you think it is important, interesting, challenging and/or likely to succeed? If you have any secondary or stretch goals (i.e., things you will do if you have time), please also describe them.
- 2) **What task(s) will you address?** Describe the task clearly (i.e., give an example of an input and an output, if applicable)
- 3) **What data will you use?** Specify the dataset(s) you will use (including its size), and describe any preprocessing you plan to do. If you plan to collect your own data, describe how you will do that and how long you expect it to take.
- 4) **Describe the models and/or techniques you plan to use.** Again, it is fine if you will use a different method. This is a blueprint.
- 5) **How will you evaluate your results?** Specify at least one well-defined, numerical, automatic evaluation metric you will use for quantitative evaluation.

3. NOTEBOOK SUMMARY (MAX 2 PAGES)

This section is only for those who select the Kaggle project. You have to review the most voted notebook corresponding to the project you chose.

- 1) **The summary:** Write a summary of the notebook based on the questions addressed in the section 2.
- 2) **Evaluation:** Evaluate their work. Every research / project has limitations and flaws. In this section, critically identify interesting experiments, methodology, or methods that your team can add on. Or, if their goal is to different to your goals, elaborate here.