

Final project

1 Project details

You will complete a research project on a scientific question related to the topics covered in this course and will write up your findings and insights in the form of a blog, with an emphasis on clear communication. Write the blog you would like to read and would learn something from. For the class, we aim to create a collection of public blog posts for us all to share!

Collaboration. You can work in groups of up to two. Joint projects require twice the effort of individual projects.

What we expect. Your project must investigate a scientific question and present the resulting analysis in the format of a blog. The course projects should go beyond re-implementing existing methods and instead seek new insights and understanding of topics discussed in class. It is not enough to do a literature review, nor to directly re-implement a method without making any changes. An example reference we like is distill.pub (but we do not expect projects do be as long as most distill posts). Projects can explore the theory, or applications of deep learning but should ask questions that further our insights of the science of deep learning. The listed project ideas should give you an understanding of what we expect the scope of the projects to be. If you choose to work on a project related to your thesis topic, it must include new analysis and/or experimentation done for the purpose of the class. We expect the blog to contain at least 2,000 words and 4 figures/tables visualizing aspects of the study conducted.

Evaluation. The blog will be graded by novelty, quality, and clarity of the content. The grade will be determined by how well your blog offers fresh insights and in-depth analysis.

Timeline

1. **Submit proposal** [10% of grade] (**Due: November 9, 1pm**): Submit a proposal in the blog format provided below. Note that you will need to compile the blog – if you have issues with compilation please come to office hours or post on Piazza. Provide an outline of your plan for the project and questions you will investigate / analysis you'll conduct in the course of it. An integral aspect of the proposal is to define a project idea that is both realistic and ambitious in scope. We recommend that you use the project proposal stage to get feedback from the teaching staff on the project's feasibility and whether the proposal satisfies the project expectations of the class.
2. **Submit blog** [90% of grade] (**Due: December 12, 1pm**): See blog submission format in the section below.

(**Note:** After project feedback, we will host the blogs online. If you want your name to be anonymized or exclude your project from the public posting, please indicate so when submitting your final blog).

2 Project Ideas

A list of suggested project ideas are available here:

<https://tinyurl.com/6s898-project-ideas>.

Please note that these are guiding ideas and that you are encouraged to develop your own ideas outside of this list. If you would like to find a partner for your own idea, you can add it to the spreadsheet. **Do not remove other people's names.** If a project is already chosen by 2 people, you will need to choose a different project idea or come up with your own.

3 Submitting Your Blog

We will be using this adapted template borrowed from the ICLR blog format (see details [here](#)). You will need to submit your project proposal and final blog using this template. To preview your blog post/render it, follow the instructions in the README of the repository. Again, if you have issues with compilation please come to office hours or post on Piazza

The main contents of your blog will be in `./_posts/2022-12-01-distill-example.md`, although you should change `2022-12-01-distill-example.md` to `2023-[MM]-[DD]-[PROJECT-TITLE]` (filling in the date and project title). You can add any images to the folder: `/assets/img/2023-[MM]-[DD]-[PROJECT-TITLE]` and .bib citations to `/assets/2023-[MM]-[DD]-[PROJECT-TITLE].bib`

For both the project proposal and final submission, please submit a folder named `2023-[MM]-[DD]-[PROJECT-TITLE]` (for example, `2023-[MM]-[DD]-sets-and-graphs`), with:

- a markdown file containing `2023-[MM]-DD-[PROJECT-TITLE].md`
- a folder called `/assets` containing the following subdirectories:
 - `/img/2023-[MM]-[DD]-[PROJECT-TITLE]` folder containing all image assets
 - `/bibliography` folder containing `2023-[MM]-[DD]-[PROJECT-TITLE].bib` with all references

See the file structure below:

