Course Project Guidance

Important Dates

Feb 23 2025 Sunday **Team Registration Ends**

Mar 23 2025 Sunday **Project Proposal Deadline(no more than 2 pages)**

Apr 24 2025 Thursday **Final Report Deadline(Requirements shown below)**

Apr 24 2025 Thursday **Presentation Video Deadline(less than 7 minutes)**

Team Size: NO MORE THAN 5 STUDENT.
You can team up with students in both Monday and Friday Class.

TEAM Registration Link:
https://docs.google.com/spreadsheets/d/1psETvZ1mZu74SF83WsAd63oAot7vDfWYz5TEGqJKN9o/edit?usp=sharing

Acceptable Project Categories

1. **Original project.** Projects which contain some original ideas are highly motivated**. You can propose new models to address some issues of existing models. You can also find some new interesting applications and design some deep learning models to achieve better results.**
2. **Model benchmark paper.** The reproducibility of the published results is critical in AI. You can find one topic you are interested in and conduct some extensive numerical comparisons for some most popular AI models for the topic you choose. Report the performance based on your experiments and conduct some analysis to explain your findings.

Requirements for the Final Report

Follow the requirements of the NeurIPS papers.

Details for NeurIPS 2025 are not ready yet. We follow the requirements of NeurIPS 2024.

Details: https://nips.cc/Conferences/2024/CallForPapers

Page limits: 9 pages for main contents

Format of the project final paper:
https://neurips.cc/Conferences/2023/PaperInformation/StyleFiles

Requirements for the Video

1. **Record a video to introduce the project. The length of the video should be within 7 minutes.**
2. **Upload the video to Youtube or Dropbox. Include the link to the video in your final project report!**

Some guidance to the proposal

The project proposal should be **NO MORE THAN TWO PAGES**.
For **Original project**, your project proposal should describe something related to:

1. What is the problem that you will be investigating? Why is it interesting?
2. What reading will you examine to provide context and background?
3. What data will you use? If you are collecting new data, how will you do it?
4. What method or algorithm are you proposing? If there are existing implementations, will you use them and how? How do you plan to improve or modify such implementations? You don't have to have an exact answer at this point, but you should have a general sense of how you will approach the problem you are working on.
5. How will you evaluate your results? Qualitatively, what kind of results do you expect (e.g. plots or figures)? Quantitatively, what kind of analysis will you use to evaluate and/or compare your results (e.g. what performance metrics or statistical tests)?
6. Codes should be released and a link to the codes should be included in the project report.

For **Model benchmark paper**, your project proposal should describe something related to:

1. What is the topic that you will be investigating? Why is it interesting?
2. What models are you going to compare?
3. On what datasets?
4. Is the code publicly available?
5. What are the key targets of your testing?
6. Codes should be released and a link to the codes should be included in the project report.

To inspire ideas, you might also look at recent deep learning publications from top-tier conferences, as well as other resources below.

- CVPR: IEEE Conference on Computer Vision and Pattern Recognition
- ICCV: International Conference on Computer Vision
- ECCV: European Conference on Computer Vision
- NeurIPS: Neural Information Processing Systems
- ICLR: International Conference on Learning Representations
- ICML: International Conference on Machine Learning
- ACL: Association for Computational Linguistics
- WWW: The Web Conference by ACM

You can also find some good papers at: https://www.paperdigest.org/best-paper-digest/