

Final project deliverable logistics

Here is the checklist for final project deliverables and presentation:

1. Sign up for **one** presenter and **one** discussant slot on presentation spreadsheet
2. Submit term paper **TWICE**
 - a. Once on Circuit for peer reviews
 - b. Once on Gradescope for final grading
3. Submit code zip file and video link on Gradescope
4. Enter paper title and publicly accessible video link on presentation spreadsheet
5. Submit in-depth peer reviews on Circuit

Term paper

You should submit a copy of your final PDF **on Circuit AND on Gradescope**. The Circuit submission will be for peer review and the Gradescope will be used for the instructors to grade your final project paper. The paper should follow the ICML LaTeX guidelines. overleaf.com is recommended for LaTeX compilation. **Paper should be 6 pages (i.e., at least 5.5 pages so that the main text spills over onto 2nd column of 6th page).** The structure should be the following (similar to Checkpoint 2).

[Informative title] - Please create an informative title for your term paper that is relevant to the content of the paper. It can be a longer title (roughly 5-10 words). You can think of it as an abstract of the abstract. It should not be generic like “Course term paper” or “Project paper”

[Abstract] - You should write an abstract paragraph that summarizes all the key points in your paper including motivation, prior work, implementation, and results

1) Introduction

[This should be the storyline for **your** project basically what the motivation and problem is, what do the papers you reviewed have to do with this problem, and the motivation and overview of your implementation. This should be a narrative summary of the overall view of your project. Note: This may look different for different projects but should guide the reader through the overall main insights of your project.]

2) (Optional) Background

[This section can be used to introduce core ideas, notation or other information that is useful across your course project, e.g., information that is common to all papers.]

3) Review of 1st paper

a) Storyline

[A summary of the whole storyline is usually in the introduction. The storyline puts research into a logical rather than chronological framework. The ideas should flow logically from one to another in a narrative form.]

i) High-level motivation/problem

[What is the larger goal/vision for this research? Or, how could it be useful for accomplishing something larger or more important beyond this particular paper?]

ii) Prior work on this problem

[How has prior research attempted to tackle this problem?]

iii) Research gap

[What is the gap in research, either in knowledge, experiments, theory, etc.?]

iv) Contributions

[What are the main contributions of the paper? Usually, the paper ends the introduction with a summary of contributions.]

b) Proposed solution

[How does this paper fill the research gap or answer the research question? What are the key ideas in the paper (e.g.,

new algorithm, new objective, new theory, new regularization, new perspective, new framework)? At least 1 paragraph + equations/algorithms if helpful.]

c) **Claim-Evidence structure**

[The experimental results section of the paper should have a structure of giving claims and empirical evidence for the claims. Sometimes the evidence is first (e.g., the figure is presented and then interpreted) and sometimes the evidence is second (e.g., a claim/hypothesis is made and then the evidence to support the claim is given). These could be primary claims (usually only 1 or 2 per paper) or subclaims (often at least 2-3).]

i) **Claim 1**

[e.g., The proposed method is more stable than previous methods.]

ii) **Evidence 1**

[e.g., Figure 1 shows the convergence behavior of our method is smoother and faster than ___ and ___ baselines.]

iii) **Claim 2**

[e.g., The proposed method is insensitive to the choice of hyperparameters.]

iv) **Evidence 2**

[e.g., Over a wide range of parameter values, the performance change is with 1% of the ideal hyperparameters.]

v) **Claim 3**

vi) **Evidence 3**

d) **Critique and Discussion**

[This section is used to critique and discuss the contents of the paper. *Examples:* Discuss what you thought was most interesting or insightful. Explain what you think was unclear. Discuss whether you think the paper's claims matched the corresponding evidence. Discuss whether you think the assumptions or experimental setup was correct.]

4) **Review of 2nd paper**

[Same structure as 1st paper]

5) **Review of 3rd paper**

[Same structure as 1st paper]

6) **Implementation**

a) **Implementation motivation**

[What do you hope to learn by your implementation? If you are doing new experiments, what will those experiments tell you (if successful)? If you are re-implementing the paper, what do you hope to learn from re-implementation? Or, if you are only (re-)implementing one component, why that component? What do you expect will happen in the experiments?]

b) **Implementation plan and setup**

[What is your specific implementation plan? Give concrete experiments. Which code base? Which datasets? Which methods? What will be the series of experiments you will perform? Which evaluation metrics will you use? What code will you reuse? Which code will you write yourself? Also, specify the priority of your implementation efforts. Connect this with your motivation above—i.e., how will this implementation or experimental plan answer the motivating questions above?]

c) **Implementation details**

[What code base did you use or compare to? Which code did you implement from scratch? What did you change in the code? What parts did you reuse? Which libraries did you use? Not all questions will be relevant for all projects but you should explain what exactly you implemented and what was reused.]

d) **Results and interpretation**

[Explain your implementation results. What do the results show or demonstrate? What do the NOT show or demonstrate (negative result)? Do they align with your expectations or not and why or why not? Do they validate or invalidate any hypotheses you made in your motivation section or plan. Why should the reader care about your results? Do not merely describe what the results are but what they mean or demonstrate. Do not overclaim. Better to suggest or conjecture what things mean than claim confidently without real evidence.]

e) **[Do not include code snippet since you will submit your code directly]**

7) **Conclusion and Discussion**

[Discuss insights gained throughout the project or scientific limitations of the proposed methods and propose ways to fix these limitations, e.g., assumptions that may not hold, computational complexity issues, limited evaluation, etc. Finally, try to connect this work back to the larger problem and original motivation.]

The basic rubric for peer review is given on the next page. **However, note that the instructors will make a final grade based on the quality of all the project deliverables as a whole and will not use this peer review rubric.**

1. [Formatting] Does the paper adhere to the anonymized ICML 2023 double-column format?

0 points ✓ Incorrectly formatted (e.g., single column, wrong font sizes, etc.)	3 points ✓ Not anonymized but correct double-column ICML 2023 format.	5 points ✓ Correct anonymized and double-column ICML 2023 format.
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2. Does the paper include an informative title?

0 points ✓ Title is not included or is uninformative (e.g., "Final paper" or "Course project").	2 points ✓ Yes
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3. Does the paper include an abstract paragraph?

0 points ✓ Not included.	1 point ✓ 3 sentences or less.	3 points ✓ One paragraph.
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4. Does the paper include an introduction?

0 points ✓ Not included.	2 points ✓ Less than 5 sentences.	5 points ✓ One paragraph or more.
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5. [Review 1] Does the paper include all 4 required sections (Storyline, Solution, Claim-Evidence, Critique/Discussion)?

0 points ✓ Missing.	2 points ✓ 1 section.	4 points ✓ 2 sections.	7 points ✓ 3 sections.	10 points ✓ All 4 sections.
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6. [Review 2] Does the paper include all 4 required sections (Storyline, Solution, Claim-Evidence, Critique/Discussion)?

0 points ✓ Missing.	2 points ✓ 1 section.	4 points ✓ 2 sections.	7 points ✓ 3 sections.	10 points ✓ All 4 sections.
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7. [Review 3] Does the paper include all 4 required sections (Storyline, Solution, Claim-Evidence, Critique/Discussion)?

0 points ✓ Missing.	2 points ✓ 1 section.	4 points ✓ 2 sections.	7 points ✓ 3 sections.	10 points ✓ All 4 sections.
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8. Does the paper include all 4 implementation sections (Motivation, Plan/Setup, Details, Results&Interpretation)

0 points ✓ Missing.	5 points ✓ 1 section.	10 points ✓ 2 sections.	15 points ✓ 3 sections.	25 points ✓ All 4 sections.
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9. Is the paper at least 5.5 pages long (i.e., spills over to second column on 6th page) EXCLUDING references?

0 points ✓ The paper is less than 3.5 pages long excluding references.	10 points ✓ The paper is at least 3.5 pages, (i.e., spills over to second column on 4th page).	15 points ✓ The paper is at least 4 pages (i.e., spills onto 5th page).	25 points ✓ The paper is at least 5.5 pages long (i.e., spills over onto the second column on the 6th page).
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10. How would you rank the quality of this submission relative to other submissions in the class?

0 points ✓ Below average (lower 25%).	3 points ✓ Average (25%-75%).	5 points ✓ Above average (75%-100%).
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11. Did you include a full review in the feedback box based on the template?

0 points ✓ No--Please include a full review in the comments box based on the template given in the final deliverables instructions.	0 points ✓ Yes
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Code zip and 5-min publicly accessible video link on Gradescope

You will submit your project code zip file and publicly accessible video link on Gradescope. You should include a README and all necessary code to run your experiments but no datasets. The README file should:

- 1) Explain how to run the experiments
- 2) Describe:
 - a) Which code files have been copied from other repositories with references to these repositories
 - b) Which code files have been modified and how they have been modified
 - c) Which code files are the student's original code.
- 3) Include a description of the datasets you used and where you obtained them.

See Gradescope assignment for more details (it is not timed like Quizzes so you can view the assignment submit and resubmit up until the deadline).

Presentations

To accommodate the large class, we will do multiple parallel *live* Zoom breakout rooms during the normal class period. **These will all be completely virtual on Zoom.**

Every student will be required to attend one breakout session live every presentation day. I will use a simple Gradescope assignment that asks you to certify if you have attended a breakout session and listened carefully each day (similar to a virtual sign-in sheet for attendance). We may use direct checking, Zoom logs, or session videos to verify your participation.

Each student must sign up for **one presenter slot AND one discussant slot**. Failure to sign up for a presenter and a discussant slot could significantly impact your final project grade.

- The **presenter** will present their course project during their assigned time.
- The **discussant** should watch the 5-min video presentation **beforehand** and prepare **5 discussion questions** for the presenter that will be asked live—you might not have time to discuss all 5 questions, but you should prepare 5 questions. These questions can be about core concepts, implementation effort, results, challenges, future directions, etc.
- To enable others to view the presentations afterwards, the **first presenter slot** will be designated with the role of **recorder**. ***The first student to sign up for a room must select the first presenter slot.*** The recorder must record the breakout room on their computer and then post a publicly accessible video link on the presentation spreadsheet (similar to 5-min video).

You may sign up for presenter and discussant slot on the same day, but ***it must be in the same breakout room*** since I won't be able to move people once the session has started.

In-Depth Peer Review of Term Paper

Your final peer review will be more in depth than previous peer reviews. In particular, you are required to fill out the 5 criteria below and put into the "Feedback" text box of your peer review on Circuit.

Reviewing principles:

- It is imperative to be polite in reviews. (If you are not polite, your grade may be significantly penalized.)

- The primary purpose of the review is not to criticize the author or their work; it is to help them improve their work.
- The most helpful things in reviews are suggestions about how to improve the paper.
- Telling the author what you understood and what you didn't also helps the author improve the paper.

Criteria (you must fill out the review template for each criteria below for each paper)

1. Please summarize the key idea in each published paper that this term paper reports on in one or two sentences.

published paper 1:

published paper 2:

published paper 3:

2. Summarize the implementation that this term paper reports (at least 4-5 sentences total). Please include what the implementation takes as **input** (in one sentence) and what the implementation produces as **output** (in one sentence). Please state the main ideas or insights of the implementation/algorithm (2-3 sentences). This summary can include mathematical notation or pseudocode.

3. Please summarize the experiments/evaluations and results. (one or two sentences)

4. What didn't you understand in this term paper? (one or two sentences)

5. How can the author improve this paper? (one or two sentences)