

# **How to be a good reviewer?**

**Review Tutorial for EECE695D-01 Reproducibility Challenge**

**Fall 2022**

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# Announcement

- Peer-review period
  - Send TA your OpenReview ID (due: 11/11)
  - 11/15 ~ 11/29, write review in EECE695D OpenReview.
- Each student should review 2 papers. (Each paper will get 4~5 reviews)
- Paper to review will be assigned considering your background.
- There are 4 scores (criteria is for yours)
  - Needs revision, Weak Accept, Accept, Strongly Accept
- For grading, “how carefully you reviewed” matters more than the scores you got.

# The role of reviewer in the process

- Provide an independent, objective, and comprehensive review
- Explain clearly the basis of your review and recommendation
- Make your final recommendation with solid justifications
- Be constructive to the authors
  - Suggest how they could make project better.

# Understand what should be included in review

- A concise summary of paper
  - Brief summary about what authors focused and what is reproduced.
  - Contribution of report
- A clear statement of strong and weak points in project
  - Hyperparameter search? Generalization?
- Other feedback
  - Suggestions for additional work, typos and etc.

# Understand what should be avoided in review

- Arrogance, ignorance, and inaccuracy
  - Do not provide an opinion on things you do not know about
- Pure opinions (without reasons)
  - Check if you grounded your statement with a “because...”
- Intellectual laziness
  - You should follow common principles in scientific review

# Difference compared with conference review

- Less consideration about novelty
  - Reproducibility challenge is not mainly focusing on developing novel method.
  - How well the authors tackled hidden limitation of original paper
- Review is NOT about *rejecting* report.

# Example reviews

[–] **Successful reproduction and application to new data sets**

ML Reproducibility Challenge 2021 Fall Paper77 Reviewer jzi3

25 Feb 2022 ML Reproducibility Challenge 2021 Fall Paper77 Official Review Readers: Everyone

**Review:**

The reproducibility report for "Domain Generalization using Causal Matching" clearly states the problem statement of the original paper: learning to generalize in order to deal with domains unseen in the training data set. Source code for the experiments in the original paper was available and used for the reproducibility study. The authors contacted the original authors successfully.

All experiments in the original paper have been reproduced successfully. Small deviations are explained well. The authors performed additional experiments using different rotation angles as training and test domains as well as an extra data set. For the reproduction the original hyperparameters were used and no ablation study was performed.

The report is well written and discusses the results of the reproducibility study at length. Additional experiments show that the original algorithm also works on data sets not tested before which nicely fits the topic.

**Rating:** 7: Good paper, accept

**Confidence:** 4: The reviewer is confident but not absolutely certain that the evaluation is correct

Summary of paper

Report summary.  
Its well-done point (additional experiments) and weak point (hyper parameter search and ablation study) is explained

Final recommendation and solid justification

- <https://openreview.net/forum?id=r43elaGmhCY>

[–] **Review**

ML Reproducibility Challenge 2021 Fall Paper61 Reviewer Vfmm

02 Mar 2022 (modified: 02 Mar 2022) ML Reproducibility Challenge 2021 Fall Paper61 Official Review Readers: Everyone

**Review:**

Overall, I think this is a fine reproduction study. Extending the originally proposed ideas to a new dataset is a good way to test the reproducibility and generalizability of the ideas. I also appreciate some of the care that went into the code notebooks created by the authors in their added notebook (i.e. "Reproduction plots.ipynb"). The added context for each cell adds a lot of readability to the code, and is a really useful artifact for others trying to reproduce this study. There are a few minor suggestions (see below) but I think the report should be accepted.

Suggestions:

- Did the authors respond to the questions you asked? It is unclear from your report.
- There are a few places where the formatting/writing needs to be addressed:
  - Section 2 first paragraph. The formatting is a bit off. Also the first sentence is a run-on and quite hard to parse at first read.
  - Section 4.1.1: Again the first paragraph has some odd formatting going on. I would also just go over the document a few times for editing.

**Rating:** 7: Good paper, accept

**Confidence:** 3: The reviewer is fairly confident that the evaluation is correct

Report summary.  
Its well-done point (expanding idea, rewriting code) is explained

Suggestions for better experiment and writing

Final recommendation and solid justification


- <https://openreview.net/forum?id=rNgg03fXnRY>



# Example reviews

[–] Reproducibility for "Privacy-preserving Collaborative Learning with Automatic Transformation Search"

ML Reproducibility Challenge 2021 Fall Paper74 Reviewer FPrB

01 Mar 2022 ML Reproducibility Challenge 2021 Fall Paper74 Official Review Readers:  Everyone

## Review:

This submission is based on reproducing and evaluating claims made in the paper - [Privacy-preserving Collaborative Learning with Automatic Transformation Search](#). The document is well written and clearly explains not only the motivation and work done in the original paper being replicated, but also clearly mentions the efforts and work done in the reproducibility experiments. The authors have done a great job in clearly stating the the different claims made by the original paper, the motivation behind each of them, and the approach they took to try to validate their claims.

Some of the other positive things in this submission are -

1. All the main claims in the original paper were tested and the results properly presented in the document.
2. Extension of the datasets by adding an additional dataset, which is especially useful to validate the claims related to transferability and goodness of the proposed policies.
3. Separate sections of results for each claim from the original paper.
4. Re-implementation and extension of the existing codebase to PyTorch-lightning, which would potentially make it easier for other researchers to use the codebase and extend the work.
5. Clearly indicating parts which could not be replicated, and the efforts made by the authors to get in touch with the original authors about clearing up the mismatched results, a couple of which are an ongoing discussion.

A few things which could help authors to further make their contribution useful to even broader community:

1. Update their document and codebase's readme once the discrepancies with the original paper's authors have been resolved. Since this is still an ongoing issue, updating it in the final version would help future re-implementations and any references to the results.
2. Extend the captions of the images and tables in the experiments and results section to have a quick reference for the reader on which result was perfectly reproduced and which one had some discrepancies.
3. Update and extend the ReadMe of their codebase link with the main contributions and highlights to give a quick overview to the user on what worked and what couldn't be replicated, with a brief mention of any ongoing discussions on discrepancies.

Overall, the authors have made a good contribution to the paper, and the improvement of the codebase is also a very useful addition.

**Rating:** 7: Good paper, accept

**Confidence:** 4: The reviewer is confident but not absolutely certain that the evaluation is correct

## Report summary

### Its well-done point

- Suggestions for better experiment and writing

## Final recommendation and solid justification

- <https://openreview.net/forum?id=SY84JTG73CK>

# Additional link

- Paper review example
  - [OpenReview ML Reproducibility Challenge](#)
- Reference
  - [CVPR2022 Review Tutorial](#)
  - [ACL Rolling Review](#)