MICCAI Reproducibility Checklist

MICCAI is committed to reproducible research. In MICCAI 2021, we strongly encourage authors to improve the reproducibility of their research by a reproducibility checklist that authors have to fill out upon submission. Authors are not required to meet all criteria on the checklist, but rather mark criteria relevant to their paper. The checklist is meant as a guide for authors, reviewers and area chairs, your answers will not be made publicly available. We encourage reviewers and area chairs to take reproducibility of the work into account when assessing a submission.

For all models and algorithms, check if you include:

☐ A clear description of the mathematical setting, algorithm, and/or model.
☐ A clear explanation of any assumptions.
☐ A clear declaration of what software framework and version you used.

For all datasets used, check if you include:

☐ The relevant statistics, such as number of examples.

☐ Description of the study cohort.

☐ For existing datasets, citations as well as descriptions if they are not publicly available

☐ For new data collected, a complete description of the data collection process, such as descriptions of the experimental setup, device(s) used, image acquisition parameters, subjects/objects involved, instructions to annotators, and methods for quality control.

☐ A link to a downloadable version of the dataset (if public).

☐ whether ethics approval was necessary for the data.

For all code related to this work that you have made available or will release if this work is accepted, check if you include:

☐ Specification of dependencies.

☐ Training code.

☐ Evaluation code.

☐ (Pre-)trained model(s).

☐ Dataset or link to the dataset needed to run the code.

☐ README file including a table of results accompanied by precise command to run to produce those results.

For all reported experimental results, check if you include:

☐ The range of hyper-parameters considered, method to select the best hyper-parameter configuration, and specification of all hyper-parameters used to generate results.
☐ Information on sensitivity regarding parameter changes.
☐ The exact number of training and evaluation runs.
☐ Details on how baseline methods were implemented and tuned.

☐ The details of train / validation / test splits.

☐ A clear definition of the specific evaluation metrics and/or statistics used to report results.
☐ A description of results with central tendency (e.g. mean) & variation (e.g. error bars).
☐ An analysis of statistical significance of reported differences in performance between methods.
☐ The average runtime for each result, or estimated energy cost.
☐ A description of the memory footprint.
☐ An analysis of situations in which the method failed.
☐ A description of the computing infrastructure used (hardware and software).
☐ Discussion of clinical significance.

This checklist was adapted from:
www.cs.mcgill.ca/~jpineau/ReproducibilityChecklist-v2.0.pdf
https://github.com/ysuter/reproducibility-checklist-miccai