

## Reproduction Checklist

### Methodology Description

- Includes a conceptual outline and/or pseudocode description of AI methods introduced.  
(yes / partial / no / NA)
- Clearly delineates statements that are opinions, hypothesis, and speculation from objective facts and results.  
(yes / no)
- Provides well marked pedagogical references for less-familiar readers to gain background necessary to replicate the paper.  
(yes / no)

### Theoretical Contributions

- Does this paper make theoretical contributions?  
(yes / no)  
*If yes, please complete the list below.*
  - All assumptions and restrictions are stated clearly and formally.  
(yes / partial / no)
  - All novel claims are stated formally (e.g., in theorem statements).  
(yes / partial / no)
  - Proofs of all novel claims are included.  
(yes / partial / no)
  - Proof sketches or intuitions are given for complex and/or novel results.  
(yes / partial / no)
  - Appropriate citations to theoretical tools used are given.  
(yes / partial / no)
  - All theoretical claims are demonstrated empirically to hold.  
(yes / partial / no / NA)
  - All experimental code used to eliminate or disprove claims is included.  
(yes / no / NA)

### Datasets

- Does this paper rely on one or more datasets? (yes / no)  
*If yes, please complete the list below.*
  - A motivation is given for why the experiments are conducted on the selected datasets.  
(yes / partial / no / NA)
  - All novel datasets introduced in this paper are included in a data appendix.  
(yes / partial / no / NA)
  - All novel datasets introduced in this paper will be made publicly available upon publication of the paper with a license that allows free usage for research purposes.  
(yes / partial / no / NA)
  - All datasets drawn from the existing literature are accompanied by appropriate citations.  
(yes / no / NA)
  - All datasets drawn from the existing literature are publicly available.  
(yes / partial / no / NA)
  - All datasets that are not publicly available are described in detail, with explanation why publicly available alternatives are not scientifically satisfying.  
(yes / partial / no / NA)

## Computational Experiments

- Does this paper include computational experiments?  
(yes / no)

*If yes, please complete the list below.*

- This paper states the number and range of values tried per (hyper-)parameter during development, along with the criterion used for selecting the final parameter setting.  
(yes / partial / no / NA)
- Any code required for pre-processing data is included in the appendix.  
(yes / partial / no)
- All source code required for conducting and analyzing the experiments is included in a code appendix.  
(yes / partial / no)
- All source code required for conducting and analyzing the experiments will be made publicly available upon publication of the paper with a license that allows free usage for research purposes.  
(yes / partial / no)
- All source code implementing new methods have comments detailing the implementation, with references to the paper where each step comes from.  
(yes / partial / no)
- If an algorithm depends on randomness, then the method used for setting seeds is described in a way sufficient to allow replication of results.  
(yes / partial / no / NA)
- This paper specifies the computing infrastructure used for running experiments (hardware and software).  
(yes / partial / no)
- This paper formally describes evaluation metrics used and explains the motivation for choosing these metrics.  
(yes / partial / no)
- This paper states the number of algorithm runs used to compute each reported result.  
(yes / no)
- Analysis of experiments goes beyond single-dimensional summaries of performance to include measures of variation, confidence, or other distributional information.  
(yes / no)
- The significance of any improvement or decrease in performance is judged using appropriate statistical tests (e.g., Wilcoxon signed-rank).  
(yes / partial / no)
- This paper lists all final (hyper-)parameters used for each model/algorithm in the paper's experiments.  
(yes / partial / no / NA)