Grading

General

The entire project has 100 points and will account for 40% of your class grade. The specific points are as follows:

- Proposal (10 Points)
- Draft (20 Points)
- Final Report (50 Points)
- Presentation (10 Points)
- Code (10 Points)

Note that we will apply some bonus points / multiplier for the students selecting hard papers. For example, to get full credits for the project, students selecting an easy paper need 100 raw credits while students selecting a hard paper may only need 90 raw credits. We will decide the exact bonus points / multiplier later.

Proposal (10 Points)

You need to have all eight items listed in the project instructions (citation to the original paper, general problem, specific approach, hypotheses to be tested, ablations planned, description of how you will access the data, a discussion of the feasibility of the computation, whether you will use the existing code or not).

For this component we will not judge quality unless you put complete nonsense for an item (then it will be considered 'missing') but we will give you feedback if we think there are problems.

- Missing citation to the original paper (-0.5)
- Missing general problem (-0.5)
- Missing specific approach (-0.5)
- Missing hypotheses to be tested (-0.5)
- Missing ablations planned (-0.5)
- Missing description of how you will access the data (-0.5)
- Missing discussion of the feasibility of the computation (-0.5)
- Missing statement of whether you will use the existing code or not (-0.5)

Draft (20 Points)

You need to use the report template and fill out the following sections, each of which we will score based on the clarity and appropriateness of your writing (percentage of total grade for each component shown).

- Introduction (2)
    - A clear, high-level description of what the original paper is about and what is the contribution of it
- Scope of reproducibility (2)
- Methodology (8)
    - Model descriptions
    - Data descriptions
    - Implementation
    - Computational requirements
- Results (8)
    - Results
    - Analyses
    - Plans
- Over 4 pages excluding references (-2)

Final Report (50 Points)

- Introduction (5):
    - A clear, high-level description of what the original paper is about and what is the contribution of it
- Scope of reproducibility (5)
- Methodology (15)
    - Model description
    - Dataset description
    - Hyperparams
        - Report at least 3 types of hyperparameters such as learning rate, batch size, hidden size, dropout
    - Implementation
        - Link to code repo
    - Computational requirements
        - Report at least 3 types of requirements such as type of hardware, avg runtime for each epoch, total number of trial, GPU hrs used, # training epochs
- Results (15)
    - All claims should be supported by experiment results
    - Discuss with respect to the hypothesis
    - Discuss with respect to the results from the original paper

- [Extra Credits] Experiments beyond the original paper (max 10pt)
    - Credits for each experiment depend on how hard it is to run the experiments. Each experiment should include results and discussion
- Discussion (10)
    - Implications of the experimental results, whether the original paper was reproducible, and if it wasn't, what factors made it irreproducible
    - "What was easy"
    - "What was difficult"
    - Recommendations to the original authors or others who work in this area for improving reproducibility
- [Extra Credits] Communication with original authors (max 5pt)
    - Bonus points if additional efforts spent on communication with the original authors
- Over 6 pages excluding references (-5)

Presentation (10 Points)

We expect a well-timed, well-presented presentation. You should clearly explain what the original paper is about (what the general problem is, what the specific approach taken was, and what the results claimed were) and what you encountered when you attempted to reproduce the results. You should use the time given to you and not too much (or too little).

- <= 4 mins
- Explain the general problem clearly
- Explain the specific approach taken in the paper clearly
- Explain reproduction attempts clearly

Code (10 Points)

- Documentation
- Citation to the original paper
- Link to the original paper's repo (if applicable)
- Dependencies
- Data download instruction
- Preprocessing code + command (if applicable)
- Training code + command (if applicable)
- Evaluation code + command (if applicable)
- Pretrained model (if applicable)
- Table of results (no need to include additional experiments, but main reproducibility result should be included)