CS 5740 Fa'23 HW3
Structured Prediction as Translation between Augmented Natural Languages
Due: TBD

Name (first last): _____ Net ID (all caps): [ ]

No part (LaTeX code, questions, comments, etc.) of this or any assignment- related material was generated/created, refined, or modified using generative AI tools such as Chat GPT. Cite this handout as:

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Some important points (instructions) to note:

(a) This part of the homework assignment is an *individual* component (not to be done in teams), and is only relevant to students enrolled in CS 5740, i.e., the graduate listing of the course.

(b) Ensure that your name and net ID are included in the .pdf file submitted to us.

(c) Since GitHub does not render a relevant diff for .pdf files, the corresponding diff (wherever applicable) will be timestamped and marked inline, in orange text.

(d) Please read the associated material (you may skip the "supplemental material" and "further reading" portions, when present) in its entirety before answering the questions.

(e) Please be concise when answering the questions; these questions are not meant to be an unordered collection of all your thoughts about the topic. Make compelling, scientifically-backed arguments that aren't misleading or confusing.

(f) Applicable only to LaTeX users: if you wish to typeset your answers in LaTeX, you can use the `\answer{}` macro in `pages/questions.tex` to set your answers; the name and net ID can be set in `main.tex` file using `\def\name{}` and `\def\netid{}`.

The idea of the second model in homework 3 comes from the paper Structured Prediction as Translation between Augmented Natural Languages (https://arxiv.org/abs/2101.05779)

Please read the paper (pages 1 through 9 – do not include appendix): and answer the following questions within a maximum of 3-4 sentences:

1. The first model of homework 3 is a task-specific discriminative model. List two limitations of the task-specific discriminative model.

Answer.

2. Below is the augmented natural language designed for NER task. Is this a good design and why?

Input: Cornell University is located in Ithaca

Output: [Cornell University | ORG] is located in [Ithaca | LOC]

Answer.

3. Please give a hypothesis as to why this approach works well in low-resource settings.

Answer.

4. Except for input and output formats, name two differences between the model in this paper and what we used in homework 3.

Answer.