Reading Assignment 1

COMP 550, Fall 2024

Due date: October 11, 2023 9:00pm

Read the following paper and write a critical summary of it:

> Lample et al., 2016. Neural Architectures for Named Entity Recognition. *NAACL.*
> https://aclanthology.org/N16-1030/

Your summary should include a description of the paper's contents, its strengths and limitations, and any points that you did not understand. Some aspects of this paper may not be covered in the lectures, I expect that there will be concepts that you do not understand! Do not worry, and document this in your write-up.

Also, discuss the following issues in your writeup:

1. What are the main components of the bidirectional LSTM-CRF architecture and their importance in Figure 1.
2. How does the proposed method handle OOV items? How does this compare to the methods that we have discussed in class?
3. In Table 1, a few methods incorporate the use of gazetteers to improve performance. Are there specific advantages or disadvantages of using external gazetteers?

Your summary should be **at most 1 page**. It will be graded on the basis of its coverage, linguistic quality, and clarity of argumentation.

Resources
- Jason Eisner's guide to reading papers:
  https://www.cs.jhu.edu/~jason/advice/how-to-read-a-paper.html
- It may help to read this tutorial on LSTM for NLP by Denny Britz before reading the paper:
  https://dennybritz.com/posts/wildml/recurrent-neural-networks-tutorial-part-4/