START OF QUIZ Student ID: 56633415, Cady, Amandisa

Topic: Lecture 7 Source: Lecture 7

Describe gemination in terms of edit actions. (1)

Topic: Lecture 5 Source: Lecture 5

Why is a majority tagger such a strong baseline for POS tagging? (1)

Topic: Lecture 7 Source: Lecture 7

Describe epenthesis in terms of edit actions. (1)

Topic: Lecture 6 Source: Lecture 6

In class, we discussed why a "Universal Morphology" might not actually be possible. Briefly explain why. (1)

Topic: Lecture 8 Source: Lecture 8

If we observe a DL model that is not properly modeling morphology (but handles syntax and semantics relatively well), what change might you propose to the architecture of the model (assume we don't have any annotated morphology data). (1)

Topic: Lecture 8 Source: Lecture 8

Imagine we were designing a probe to understand whether a model were gender biased. How might we design such a probe, and if we found the model to exhibit such a bias, what suggestions would you make to neutralize the bias? (2)

Topic: Lecture 5 Source: Lecture 5

In DSCI 563, we discussed EM for POS tagging. Let's make it neural. Assume we have a small set of gold annotated sentences (100). How could we use contextualized embeddings to bootstrap more annotated data (assume that fine-tuning doesn't work)? (2)

${\bf Question} \ 8$

Topic: Lecture 6 Source: Lecture 6

We know that domain shift can have a significant impact on the quality of our models despite POS tagging being an "easy" task, POS taggers fail spectacularly when we try to use them on different domains. Do you think the same would be true of (contextual) morphological analysers? What similarities and differences between POS and MSD led you to this conclusion? (2)

Topic: Long

Source: Lecture 8

Humans are pretty good at learning the morphology of their language, but they make mistakes. Kids will typically learn irregular morphology before regular morphology, then forget it, and then reacquire it (for example, kids will learn "I went outside", then transition to "I goed outside", before eventually coming back to "I went outside"). From your understanding of how DL models work, do you expect something similar to happen within neural language tools? Explain why this might or might not be the case. (3)

END OF QUIZ