

START OF QUIZ

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Question 1

Topic: Lecture 7

Source: Lecture 7

Describe gemination in terms of edit actions. (1)

Question 2

Topic: Lecture 7

Source: Lecture 7

Describe epenthesis in terms of edit actions. (1)

Question 3

Topic: Lecture 5

Source: Lecture 5

Imagine that we wanted to create POS embeddings in the same way that we create word embeddings. Explain one way that it would be very similar to word embeddings, and one that it would be very different. (1)

Question 4

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)

Question 5

Topic: Lecture 6

Source: Lecture 6

Would F1 score be an appropriate measure for gauging the quality of a morphological analyzer? Explain why or why not. (1)

Question 6

Topic: Lecture 8

Source: Lecture 8

Imagine we have a good neural morphological analyzer, and we want to inject the knowledge into a larger NLP DL model (like an LLM, etc.). How might we do so in an efficient way? (2)

Question 7

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)

Question 8

Topic: Lecture 6

Source: Lecture 6

Feature engineering can be incorporated into encoder-decoder models through the use of multiple encoders. If you could have any extra annotation for morphological analysis, and were able to pass each through a separate encoder, what types of features would you include? Do you see any potential problems with using this extra annotation? (2)

Question 9

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