Appendix

0.1 Hyper-parameter settings for the Biaffine Parser

Hyper-parameters	Value
Word Embedding Dimensions	100
PLM Embedding Dimensions	100
num of PLM Layers Used	4
num of LSTM Layers	3
LSTM Hidden Layer Dimensions	400
Learning Rate	2e-3

Table A.1: Hyper-parameter settings for the biaffine parser

0.2 Hyper-parameter settings for Fine-tuning Chinese Llama-3

Hyper-parameters	Value
learning rate	1e-4
num_train_epochs	3
per_device_train_batch_size	2
max_seq_length	256

Table A.2: Hyper-parameter settings for Fine-tuning Chinese Llama-3

0.3 Prompt for Parse Error Correction

"instruction": *You are a dependency parser for Chinese. Given a tokenized Chinese sentence, for each word, identify its head and the dependency relation between them. Here is an invalid dependency tree, please correct the errors in it by checking the four criteria:* *1. verify that every token in the sentence is assigned a unique, consecutive numerical index inthe parse. Ensure that there are no gaps, duplicates, or skipped indices.* *2. confirm that no token, except the root, has a head index equal to its own index. The root token should point to 0.* *3. check for pairs of tokens that form a mutual cycle, where each token incorrectly references the other as its head.* *4. compare the tokenization of the parsed structure with the given sentence. If discrepancies exist, revise the parse to match the original sentence's tokenization exactly, and correct the parse if necessary.* *Only respond with the revised parse.*
"sentence": <*sentence*>
"parse": <*invalid parse*>
"revise": <*revised parse*>

Table A.3: Prompt for correcting parse errors