Review: Deep Fusion LSTMs for Text Semantic Matching

ACL 16

Weak interaction Models

- Encode two sequences into continuous dense vectors

- Compute the matching score based on sentence encoding

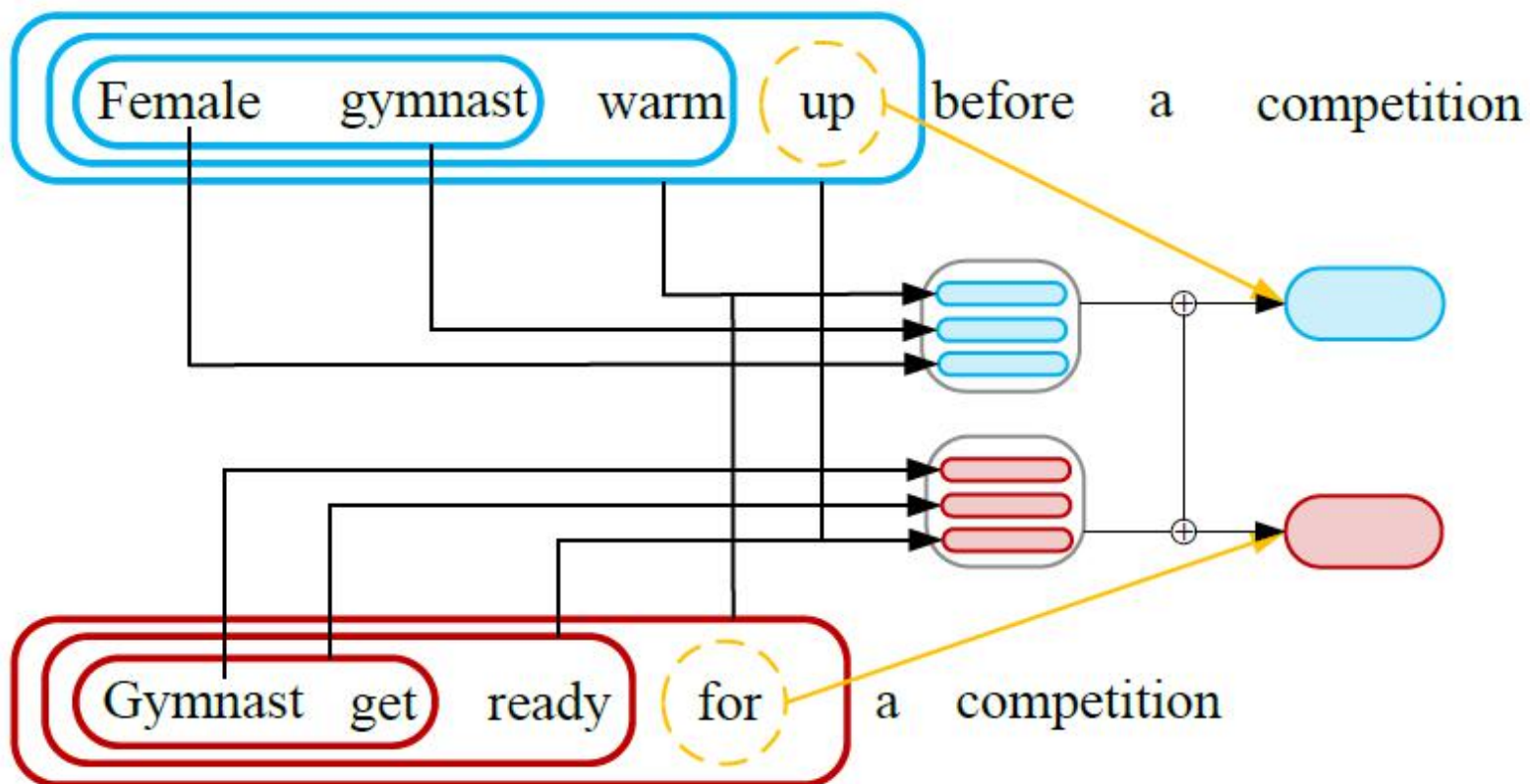- Two sentences have no interaction until arriving final phase

Semi-interaction Models

- Use soft attention mechanism to obtain the representation of one sentence by depending on representation of another sentence
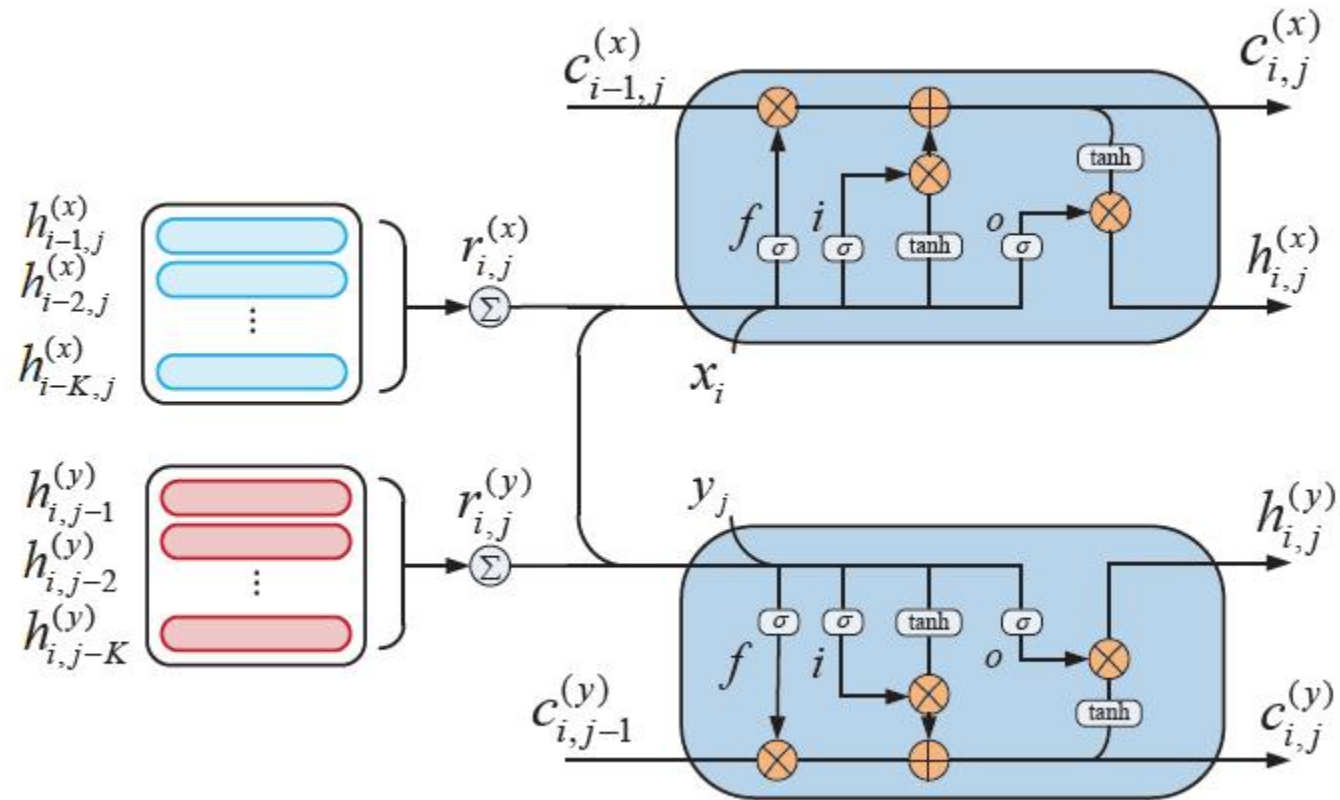
Strong Interaction Models

- Build the interaction at different granularity (word, phrase and sentence level)

Recursive composition mechanism

Illustration of DF-LSTMs unit

Experiment

Model	k	Train	Test
NBOW	100	77.9	75.1
single LSTM (Rocktäschel et al., 2015)	100	83.7	80.9
parallel LSTMs (Bowman et al., 2015)	100	84.8	77.6
Attention LSTM (Rocktäschel et al., 2015)	100	83.2	82.3
Attention(w-by-w) LSTM (Rocktäschel et al., 2015)	100	83.7	83.5
DF-LSTMs	100	85.2	**84.6**

Table 2: Accuracies of our proposed model against other neural models on SNLI corpus.