

Deep Learning for NLP 2020

Exercise 07

June 1, 2020

1 Pingo

Try to find the right answer(s) to each question on your own or in a group with your colleagues. The interactive survey will be conducted near the end of the practice class.

- Which of the following statements about recurrent neural networks are true?
 - ☐ Every iteration has its own weight matrices.
 - ☐ Information about previous inputs can be stored via “feedback loops”.
 - ☐ They can process input sequences of arbitrary length.
- What is the main reason for CBOW and skip-gram not being applicable on full sentences?
 - ☐ The training process would be too computationally expensive
 - ☐ There are no sufficiently large corpora with full sentences
 - ☐ The probability for out-of-vocabulary sentences when applying the embeddings would be too high

2 Sentence Embeddings

1. List two reasons why the naïve approach of creating a sentence embedding by averaging word embeddings might cause problems.
2. List four sentence representation techniques covered in the lecture and explain their main principle in one sentence.