

Homework 09 – Language

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0 Outline

- 1 Reading
- 2 Theory
- 3 Practice

1 Reading

1. Language

Motivation: understand common uses of xNNs in language applications
https://github.com/arthurredfern/UT-Dallas-CS-6301-CNNs/blob/master/Lectures/xNNs_090_Language.pdf

Complete

2. Open sourcing BERT: state-of-the-art pre-training for natural language processing

Motivation: an alternative presentation of BERT
<https://ai.googleblog.com/2018/11/open-sourcing-bert-state-of-art-pre.html>

Complete

3. The illustrated BERT, ELMo, and co. (how NLP cracked transfer learning)

Motivation: an alternative presentation of language modeling
<http://jalammar.github.io/illustrated-bert/>

Complete

2 Theory

None

3 Practice

4. Word embeddings. Understand the following example (https://www.tensorflow.org/beta/tutorials/text/word_embeddings) and run it in Google Colab.

Complete

5. Language translation with a RNN – attention – RNN based network. Understand the following example (https://www.tensorflow.org/beta/tutorials/text/nmt_with_attention) and run it in Google Colab.

Complete

6. Self attention based language understanding and language translation. Understand the following example (<https://www.tensorflow.org/beta/tutorials/text/transformer>) and run it in Google Colab.

Complete