



Overview

Week 1

Week 2

Week 3

Week 4

Grades

Notes

Discussion Forums

Messages

Course Info

Week 1

Natural Language Processing with Attention Models

Week 1

Discuss the topic here.

2 threads · Last post 7 hours ago

Go to forum

Neural Machine Translation



Discover some of the shortcomings of a traditional seq2seq model and how to solve for them by adding an attention mechanism, then build a Neural Machine Translation model with Attention that translates English sentences into German.

Key Concepts

- Explain how an Encoder/Decoder model works
- Apply word alignment for machine translation
- Train a Neural Machine Translation model with Attention
- Develop intuition for how teacher forcing helps a translation model checks its predictions
- Use BLEU score and ROUGE score to evaluate machine-generated text quality
- Describe several decoding methods including MBR and Beam search

Less

Neural Machine Translation

Video: Course 4 Introduction 2 min

Resume

Reading: Connect with your mentors and fellow learners on Slack! 10 min

Video: Seq2seq 4 min

Video: Alignment 4 min

Reading: (Optional): The Real Meaning of Ich Bin ein Berliner 10 min

Video: Attention 6 min

Video: Setup for Machine Translation 3 min

Lab: Ungraded Lab: Stack Semantics 30 min

Video: Training an NMT with Attention 6 min

Reading: (Optional) What is Teacher Forcing? 10 min

Video: Evaluation for Machine Translation 8 min

Lab: Ungraded Lab: BLEU Score 30 min

Video: Sampling and Decoding 9 min

Reading: Content Resource 10 min

Assignment

Programming Assignment: NMT with Attention 3h Due Oct 5, 1:59 AM CDT

