



Overview

Week 1

Week 2

Week 3

Week 4

Grades

Notes

Discussion Forums

Messages

Course Info

Week 2

Natural Language Processing with Sequence Models

Week 2

Discuss the topic here.

45 threads · Last post 21 hours ago

Go to forum

Recurrent Neural Networks for Language Modeling



Learn about the limitations of traditional language models and see how RNNs and GRUs use sequential data for text prediction. Then build your own next-word generator using a simple RNN on Shakespeare text data!

Key Concepts

- N-grams
- Gated recurrent units
- Recurrent neural networks

⬆ Less

N-grams vs. Sequence Models

▶ Video: Traditional Language models 3 min

Resume

▶ Video: Recurrent Neural Networks 4 min

▶ Video: Applications of RNNs 3 min

▶ Video: Math in Simple RNNs 3 min

📄 Lab: Lecture Notebook: Hidden State Activation 20 min

▶ Video: Cost Function for RNNs 1 min

▶ Video: Implementation Note 2 min

📄 Lab: Working with JAX NumPy and Calculating Perplexity 20 min

▶ Video: Gated Recurrent Units 4 min

📄 Lab: Vanilla RNNs, GRUs and the scan function 20 min

📄 Lab: Creating a GRU model using Trax 20 min

▶ Video: Deep and Bi-directional RNNs 3 min

Assignment: Deep N-grams

🕒 Programming Assignment: Deep N-grams 3h Due Oct 5, 1:59 AM CDT