

# RNN + Assignment 8, 9

(Neural Networks Implementation and Application Tutorial)

Vilém Zouhar, Noon Pokaratsiri Goldstein

20th,21st January 2022

# Overview

- Assignment 8
- Content
- Assignment 9

# Assignment 8

TODO

# Recurrent Neural Networks

- What's an RNN?
- What's it used for? What input can it *consume* and *produce*?
- How does it work?

## RNN cells

- vanilla RNN
- LSTM
- GRU

# Improvements

- Bidirectionality
  - ▶ Why?
- Multiple layers
  - ▶ How does that work?
  - ▶ Why would that be useful?

## PyTorch peculiarities

- You can't have a “ragged tensor”
- All sequences in a batch must be *padded* to the same length

# Assignment 9

- Start early
- Any questions?

# Resources

TODO