

LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN The Center for Information and Language Processing (CIS)



## State-of-the-art Neural Machine Translation

- Research group
  - Stefan Schweter, Nicolai Ruhnau
- Background
  - Master's students in Computational Linguistics at the Center for Information and Language Processing (CIS), LMU
- Research topic
  - Natural Language Processing (NLP), especially Neural Machine Translation (NMT)
- Deep Learning software
  - Theano, TensorFlow and Torch



LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN The Center for Information and Language Processing (CIS)



## DGX-1 results and future plans

- DGX-1 is excellent for training NMT models
  - even Google used it in their latest paper
- Normally training of NMT models would take more than two weeks, with DGX-1 it can be done in 1- 3 days
- Some of our deep learning software requires CUDNN 5 so switching from CUDNN 6 can be tricky
- We plan to train and publish models for under-represented languages in NMT
  - P.e. South-East European Languages



LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN The Center for Information and Language Processing (CIS)



## LRZ GPU whish list

- New Tesla V100 GPU sounds very promising
- Long-term reservations (1 to 3 days)
- Dedicated virtual machines with multiple GPUs
- Permanent storage (over reservations) for trained models
- Reservation calendar system: possibility to save (and remember) favourite docker container
- Restart and change docker container during reservation