

- Reminder: these topics should all be in English

Event Extraction

TOPIC: Automatically labeled data for event extraction

- Overview of hand-labeled data for event extraction. What problems do we face when using this data?
- Can automatically labeled data solve them?
- Explain the process of generating automatically labeled data
- Present a method for event extraction

Sources and possible papers

- Chen, Yubo, et al. "Automatically Labeled Data Generation for Large Scale Event Extraction." *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*. Vol. 1. 2017.

Entity and Relation Extraction

TOPIC: Attention RNN for Joint Entity and Relation Extraction

- Outline the advantages of:
 - joint models relative to pipeline methods
 - RNN relative to feature-based methods
 - using an attention mechanism
- Do we need dependency trees?

Sources and possible papers:

- Katiyar, Arzoo, and Claire Cardie. "Going out on a limb: Joint Extraction of Entity Mentions and Relations without Dependency Trees." *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*. Vol. 1. 2017

Temporal Information Extraction

TOPIC: SemEval-2016 Task 12: Clinical TempEval

- Overview of the Clinical TempEval task
- Present training data, tasks, evaluation metrics
- System overview of one of the participants (preferably a participant with high scores across all metrics)

Sources and possible papers:

- Bethard, Steven, et al. "Semeval-2016 task 12: Clinical TempEval." *Proceedings of SemEval (2016)*: 1052-1062.

Named Entity Recognition

TOPIC: Twitter Named Entity Recognition

- Overview of the wnut16 task
- Present training data, annotation process, evaluation metrics
- System overview of one of the participants (preferably a participant with high scores across all metrics)

Sources and possible papers:

- Strauss, Benjamin, et al. "Results of the wnut16 named entity recognition shared task." *Proceedings of the 2nd Workshop on Noisy User-generated Text (WNUT)*. 2016.

Named Entity Recognition

TOPIC: Unsupervised Named Entity Recognition

- Do we need manually labeled data at all for NER?
- Compare one supervised and one unsupervised method for NER
- Present in more detail the unsupervised method from the paper below
- Which approach do you think is better and in which circumstances?

Sources and possible papers:

- Nadeau, David, Peter Turney, and Stan Matwin. "Unsupervised named-entity recognition: Generating gazetteers and resolving ambiguity." *Advances in artificial intelligence* (2006): 266-277.

Sentiment Analysis

TOPIC: Applications of social media sentiment analysis

- Twitter sentiment analysis: Detecting public opinion
- Automatic classification of sentiment
- Using sentiment analysis during crisis, e.g. how useful can this data be for disaster response

Sources and possible papers:

- Caragea, Cornelia, et al. "Mapping moods: Geo-mapped sentiment analysis during hurricane sandy." ISCRAM. 2014.