

Inf Sci Master thesis topics

2019/2020

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Dutch Coreference Resolution

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--|---|
De dag die je wist dat zou komen is eindelijk hier. Ben je er klaar voor?
      |                                     |
      +-----+

```

RULE-BASED



STATISTICAL



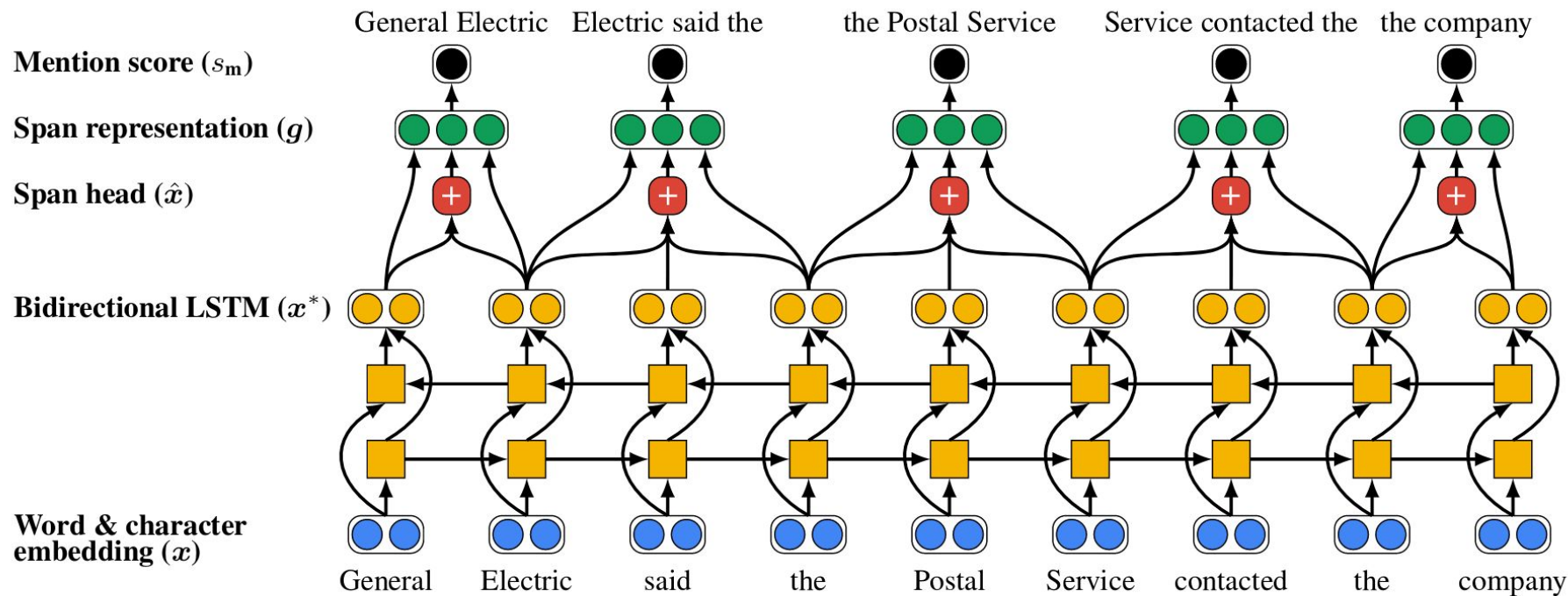
NEURAL



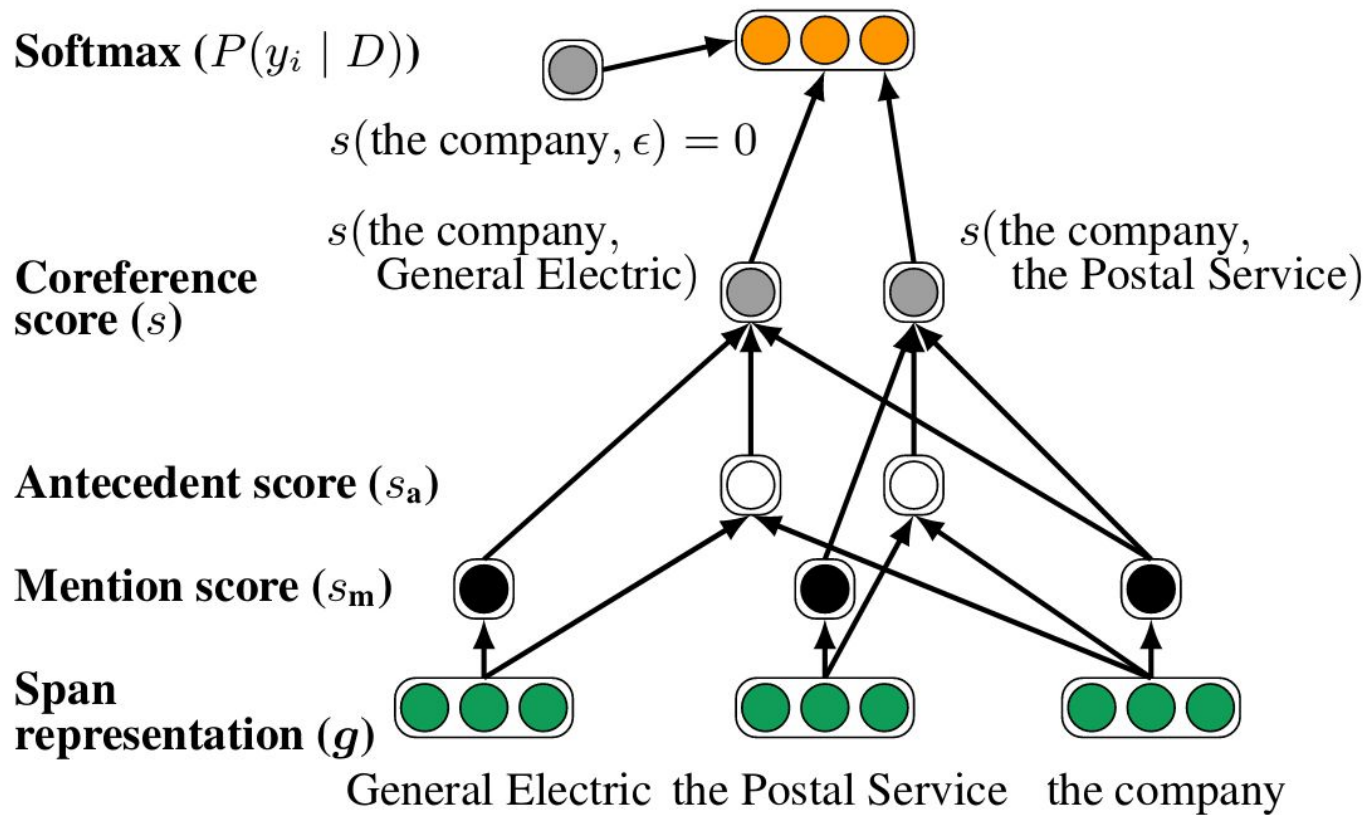
BERT



- Done.
- Your thesis?
- Your thesis?
- Stay tuned!



End-to-End Neural Coreference Resolution (Lee et al. EMNLP 2017)



End-to-End
Neural
Coreference
Resolution
(Lee et al.
EMNLP 2017)

End-to-End Neural Coreference for Dutch

1. Convert SoNaR-1 data to CoNLL 2012 format

Scripts: <https://github.com/cltl/FormatConversions/tree/master/mmax2conll>

Need to fix some conversion issues.

2. Train End-to-End Neural Coreference system (Lee et al. EMNLP 2017)

Need to adapt existing code (replace word embeddings):

- a. <https://github.com/shayneobrien/coreference-resolution>
- b. <https://github.com/vmath89/Coreference-Resolution>
- c. <https://github.com/kentonl/e2e-coref>
- d. <http://zil.ipipan.waw.pl/Corneferencer>

3. State-of-the-art results for Dutch!

Better Dutch Coreference Resolution with Classifiers

Improve one or more components:

- Pronoun resolution
- Quote attribution
- Gender/animacy of NP
- Mention detection/spans
- Pleonastic pronoun detection

Heeyoung Lee et al. (NLE 2017) A scaffolding approach to coreference resolution integrating statistical and rule-based models.

Procedure:

1. Acquire/annotate (more) data
2. Train supervised classifier
3. Integrate in coreference system
4. Better coreference scores!
(literature, shared tasks)

<http://andreascvc.github.io>