

# A sequence-to-sequence approach for document-level relation extraction


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October 13, 2022

# Introduction

- Novel end-to-end joint learning approach for inter-sentence relation extraction.<sup>1</sup>
- Utilizes sequence to sequence architecture.
- Representation schema for coreferent entities,  $n$ -ary relations, and disjoint spans in output.

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<sup>1</sup>Document-level is a stretch, due to encoder limit of 512 tokens they did paragraphs. 

# Introduction

- New benchmarks for end-to-end results over some biomedical datasets.
- Competitive results against more complex architectures for datasets with established end-to-end results.

# Defining Terms

## End-to-end RE:

- Relation extraction depends on entities.
- Pipeline methods (current standard), use one or more models for NER, and one or more models for RE over discovered entities.
- End-to-end approaches use one model (possibly with a classification head) to discover the relations, relying on internal representations for entity information.

# Defining Terms

Coreference:

- The same entity may have one or more mentions in a given text unit (type vs. token).
- Test

# Motivation

- Lots of entity and relation information at the document and cross document level.
- Generalizing sentential pipeline methods (the current standard) for inter-sentential RE is very tricky.<sup>2</sup>
- Lots of information takes the form of  $n$ -ary relations and disjoint spans

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<sup>2</sup>e.g. our NER/RE system for radiotherapy.

# Conclusion

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