

# cTAKES 3.0 - Relation Extractor

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## cTAKES 3.0 Links

Apache cTAKES web site  
Documentation:

- [cTAKES 3.0](#)
- [cTAKES 3.0 User Install Guide](#)
- [cTAKES 3.0 Developer Install Guide](#)
- [cTAKES 3.0 Component Use Guide](#)
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## Overview of Relation Extractor

The relation extractor is designed to annotate relations between certain Event, Entity, and Modifier annotations.

It currently has been trained for detecting body site and severity, using machine learning with a model trained on manually annotated clinical data.

The default means of running the relation extractor is to use `ctakes-relation-extractor/desc/analysis_engine/RelationExtractorAggregate.xml`.

## Analysis Engines

### [analysis\\_engine/RelationExtractorAggregate](#)

An aggregate analysis engine that will do all of the preprocessing before running `ModifierExtractorAnnotator`, `DegreeOfRelationExtractorAnnotator` and `EntityMentionPairRelationAnnotator`

### [analysis\\_engine/EntityMentionPairRelationAnnotator](#)

This analysis engine will iterate through all sentences in a document and tag pairs of entities with a relation. This depends on having POS tags, Named Entities, Dependency Parses, Constituency Parses and Chunks. Currently this annotator only outputs `LocationOf` relations.

No parameters need to be set as the defaults are sufficient for analysis engine initialization.

### [analysis\\_engine/ModifierExtractorAnnotator](#)

This analysis engine will take a CAS and annotate spans with Modifiers. This analysis engine is a prerequisite for the `DegreeOfRelationExtractorAnnotator`.

No parameters need to be set as the defaults are sufficient for analysis engine initialization.

### [analysis\\_engine/DegreeOfRelationExtractorAnnotator](#)

This analysis engine will iterate through all sentences in a document and tag all relevant pairs of entities and modifiers with a `DegreeOf` relation. This analysis engine depends on identification of Modifiers from the `ModifierExtractorAnnotator`.

No parameters need to be set as the defaults are sufficient for analysis engine initialization.

### [analysis\\_engine/RelationExtractorPreprocessor](#)

This aggregate analysis engine contains all of the prerequisites necessary for running relation extraction.