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FASTCONTEXT

HEALTHCARE IT

Algorithms for determining contextual features in text extracted from clinical notes enabling free-text to be analyzed computationally.

TECHNOLOGY TYPE

Natural Language Processing
Bioinformatics
Research Tool

STAGE OF DEVELOPMENT

- Algorithms tested against open-source versions of ConText.

- Ongoing code and algorithm optimization.

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TECHNOLOGY SUMMARY

ConText, a widely used, open-source clinical natural language processing algorithm, tries to confirm that information extracted from a clinical note applies to the appropriate patient and visit and is not negated. The process, however, is time consuming as it must follow over 600 rules.

FastConText is a more efficient, scalable implantation of ConText suitable for large- scale clinical natural language processing. The algorithm determines contextual features of information from clinical notes by identifying negation, temporality, and experience using generalized rule processing. The new algorithm adds additional rules that improve both the speed and accuracy of natural language processing.

FEATURES AND BENEFITS

- Reduces processing time (200 times faster than JavaConText and 400 times faster than GeneralConText).
- Improves processing accuracy and efficiency.
- Facilitates addition of specific rules, with little impact on processing time.
- Scalable.

INVENTOR PROFILE

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