Special Issue

Natural Language Processing with Tsetlin Machines and Deep Neural Networks

Message from the Guest Editors

Tsetlin machines have been particularly successful in NLP. The pioneering NLP approaches use Boolean bag-of-words to represent natural language and logical clauses to capture textual patterns. Recent work addresses text classification, word-sense disambiguation, semantic relation analysis, novelty detection, and aspect-based sentiment analysis. Deep neural networks have been widely recognized and employed for various NLP applications. A combination of Tsetlin machine and deep neural networks may solve NLP tasks in a more efficient and transparent way.

- first-order logics
- embedding
- boolean representations
- clustering
- interpretation
- convolution
- novelty detection
- knowledge representation
- Hawkes processes
- attention
- sentiment analysis
- question-answering
- word-sense disambiguation
- speech understanding
- chatbots
- explainable machine learning
- continuous interpretation of document streams

Guest Editors

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Prof. Dr. Morten Goodwin

Deadline for manuscript submissions

closed (30 November 2022)

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Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

Editor-in-Chief

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