COLING 2018

The Third Workshop on Semantic Deep Learning (SemDeep-3)

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Preface

This third workshop on Semantic Deep Learning (SemDeep-3) invited researchers and professionals in computational linguistics to report results and systems on the possible contributions of Deep Learning to classical problems in semantic applications, such as meaning representation, dependency parsing, semantic role labeling, word sense disambiguation, semantic relations extraction, statistical relation learning, knowledge base completion, or semantically grounded inferences.

There are notable examples of contributions leveraging either deep neural architectures or distributed representations learned via deep neural networks in the broad area of Semantic Web technologies, such as ontology learning or prediction. Ontologies, on the other hand, have been repeatedly utilized as background knowledge for machine learning tasks. This interplay between structured knowledge and corpus-based approaches has given way to knowledge- rich embeddings, which in turn have proven useful for tasks such as hypernym discovery, collocation discovery and classification, word sense disambiguation, and many others.

This workshop consists of five papers with oral presentations (three of which also present a poster in a joint session) and two invited talks. Steven Schockaert from Cardiff University gives an invited talk entitled "Knowledge Representation with Conceptual Spaces", which will focus on learning Gärdenfors' conceptual spaces as an alternative to entity embeddings. Christos Christodoulopoulos from Amazon Research Cambridge talks about "Knowledge Representation and Extraction at Scale", which will detail methods for building and maintaining a knowledge base for Alexa as well as fact extraction and verification techniques.

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