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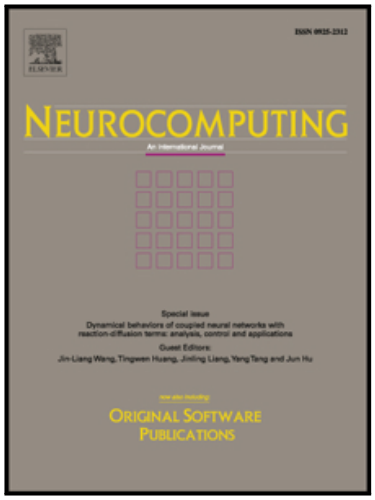

Bilinear Joint Learning of Word and Entity Embeddings for Entity Linking

Hui Chen, Baogang Wei, Yonghuai Liu, Yiming Li, Jifang Yu, Wenhao Zhu

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Bilinear Joint Learning of Word and Entity Embeddings for Entity Linking

Hui Chen[a], Baogang Wei[a,*], Yonghuai Liu[b], Yiming Li[a], Jifang Yu[a], Wenhao Zhu[c]

[a] *College of Computer Science and Technology*
Zhejiang University
Hangzhou 310027, P.R. China
[b] *Department of Computer Science, Aberystwyth University*
Ceredigion SY23 3DB, UK
[c] *School of Computer Engineering and Science, Shanghai University*
Shanghai 200000, P.R. China

Abstract

Entity Linking (EL) is the task of resolving mentions to referential entities in a knowledge base, which facilitates applications such as information retrieval, question answering, and knowledge base population. In this paper, we propose a novel embedding method specifically designed for EL. The proposed model jointly learns word and entity embeddings which are located in different distributed spaces, and a bilinear model is introduced to simulate the interaction between words and entities. We treat EL as a ranking problem, and utilize a pairwise learning-to-rank framework with features constructed with learned embeddings as well as conventional EL features. Experimental results show the proposed model produces effective embeddings which improve the performance of our EL algorithm. Our method yields the state-of-the-art performances on two benchmark datasets CoNLL and TAC-KBP 2010.

Keywords: Entity Linking, Embedding Model, Learning to Rank, Entity Disambiguation

*Corresponding author
Email addresses: chhui@zju.edu.cn (Hui Chen), wbg@zju.edu.cn (Baogang Wei), yyl@aber.ac.uk (Yonghuai Liu), liyiming90@zju.edu.cn (Yiming Li), impyjf@zju.edu.cn (Jifang Yu), whzhu@i.shu.edu.cn (Wenhao Zhu)

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