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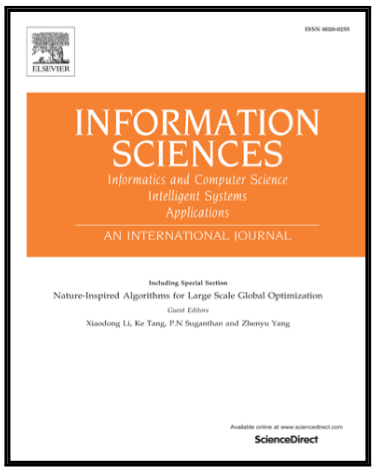

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PII: S0020-0255(16)30667-3
DOI: 10.1016/j.ins.2016.08.084
Reference: INS 12487

To appear in: *Information Sciences*

Received date: 27 May 2016
Revised date: 1 August 2016
Accepted date: 26 August 2016

Please cite this article as: Yong Zhang, Meng Joo Er, Ning Wang, Mahardhika Pratama, Attention Pooling-based Convolutional Neural Network for Sentence Modelling, *Information Sciences* (2016), doi: 10.1016/j.ins.2016.08.084

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Attention Pooling-based Convolutional Neural Network for Sentence Modelling

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Abstract

Convolutional neural network has been proven to be a powerful semantic composition model for modelling sentences. A standard convolutional neural network usually consists of several convolutional and pooling layers at the bottom of a linear or non-linear classifier. In this paper, a new pooling scheme termed *Attention Pooling* is proposed to retain the most significant information at the pooling stage. An intermediate sentence representation generated by the bidirectional long short-term memory is used as a reference for local representations produced by the convolutional layer to obtain attention weights. The sentence representation is formed by combining local representations using obtained attention weights. The intermediate sentence representation is used as an input to the top classifier as well in the testing phase. The salient features of the proposed attention pooling-based convo-

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