

On Utilization of Ontology and Retrofitting Techniques for Better Distributed Representations of Words and Senses

Abstract

With the increasing number of natural language processing tasks, the need for better representations of words (word embedding) and senses (sense embedding) is getting higher in recent years. In this talk, Yang-Yin will discuss the problem of abnormal dimensions in word embedding, and then propose models that combine word embedding with ontology. The combination will be discussed in three ways: directly combination approach, support vector regression approach and retrofitting approach. In sense embedding, Yang-Yin will show a joint sense-retrofitting model that learns better sense representation from contextual and ontological information, and then generalize the proposed model.

Speaker



Dr Yang-Yin Lee
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Yang-Yin Lee received his Ph.D. degree in Computer Science and Information Engineering at National Taiwan University advised by Hsin-His Chen. Prior to that, he received his M.A. degree in Computer Science and Engineering at National Chiao Tung University, Taiwan. He received his B.S. in Computer Science at National Chengchi University, Taiwan. His research interests are in natural language processing, machine learning and optimization. Lately, he has worked on representations of words and senses, especially using retrofitting techniques. One of his works was nominated as best poster at WWW '16 on filtering abnormal dimensions in word embedding. Another work was nominated as best paper at COLING '18 on generalizing sense-retrofitting model.

Details

Tuesday, February 26, 2019
3:00 PM - 4:00 PM

Meeting Room 4-4, Level 4
School of Information Systems, Singapore Management University, 80
Stamford Road, Singapore 178902, Singapore

We look forward to seeing you at this research seminar.

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