CHEN LIU

Basic Information

First Name:	Chen
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Date of Birth	1993-1-21
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Github:	github.com/liuchen11
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Education

2011-2015 B.E in Computer Science & Technology
Tsinghua University, Beijing, China
GPA: 91.34/100
Rank: 9/123
Transcript

Research Interests

Natural Language Processing(NLP), Deep Learning(DL), Pattern Recognition(PR) and Machine Learning(ML)

Research Experience

June 2015
Dec 2014

Recurrent Convolutional Neural Network for Sentence Classification
Supervised by Xiaolin Hu, Associate Processor
National Laboratory for Information Science and Technology

Recently, convolutional neural network(CNN) has achieved great success in areas such as pattern recognition because of its fewer parameters and power to extract hierarchical features. By adding recurrent connections in CNN, the model called recurrent convolutional neural network(RCNN) can even extract hierarchical features within a layer. RCNN has already shown state-of-art poformance in object recognition. My work is to apply this technology to the field of NLP to solve the problem of sentence classification. Unlike objection recognition, I will build a new model combined classic CNN, RCNN and MLP to complete this task. This is partly because of the latent representation of words and flexible length of sentences.
This project is the base of my bachelor thesis.

July 2014
Mar 2014

Class-Based Summarization of Multi-Language Microblogs
Supervised by Hua Xu, Associate Processor
National Laboratory for Information Science and Technology

In times of big data, there are millions of microblogs posted every day. It is necessary to generate summarizations of these microblogs automatically. However, many developed systems and algorithms like The Phrase Reinforcement and Hybrid TF-IDF ignores some context relations and performs poorly especially in Chinese corpus. This is partly because much more different or informal expression in microblog delivering the same meaning weaken the power of words-cooccurence-based algorithms. My research focuses on designing a class-based algorithm to generate summaries of both English and Chinese microblogs. It firstly uses machine learning algorithms to distribute words of the same meaning into one classification. Then we use a tree pattern reinforcement algorithms to generate summaries based on the classification in the first step.

Professional Skills

Programming Languages:

C/C++,Java,Python,Golang

About Artificial Intelligence:

SVM, DecisionTree, Deep Learning Package(Theano etc), Topic Model Tools etc.

Software-Level:

Git, SVN, HTML, Javascript

Hardware-Level:

VHDL, MIPS Pipeline CPU

More detailed information, demos and projects are on github and my homepage.

Social Service

Jul 2012	**'Caring Girls in Gansu' Summer Practice** Captain of this detachment. Investigate living conditions of girls in two state-level poverty-stricken county in Gansu Province, western China. Second prize of the national competition.
May 2014 *Jun 2012*	**Youth League of the Department** Member(2013) and director(2014) in the group of practice.

Awards

July 2015	Outstanding Graduates of Department of Computer Science and Technology in Tsinghua University
Oct 2014	Scholarship of Academic Excellence in Tsinghua University (2014)
Oct 2013	Scholarship of Academic Excellence in Tsinghua University (2013)
Oct 2013	Scholarship of Social Work in Tsinghua University (2013)
Dec 2012	First prize of Physics Competition for College Students in Beijing

Latest Update: Sept 4th, 2015