Bing Liu

Information Extraction · Natural Language Processing · Machine Learning

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"All human misery stems from the indignation of one's own incompetence."

My Summary

I am now a second year Ph.D. student at the School of Computer Science and Engineering in the Southeast University, China. My research interests mainly lie in Information Extraction, Natural Language Processing and Machine Learning.

Education

PH.D. Candidate in Computer Science and Technology — *Nanjing, China*

School of Computer Science and Engineering, Southeast University, China — *Mar. 2017 - PRESENT*

- Advisor: Prof. Guilin Qi [gqi@seu.edu.cn]

M.E. in Transportation Planning and Management — *Nanjing, China*

School of Transportation, Southeast University , China — *Sep. 2014 - Dec. 2016*

- Advisor: Prof. Wei Wang [wangwei@seu.edu.cn]

B.S. in Information and Computing Science — *Nanjing, China*

School of Mathematics, Southeast University, China — *Sep. 2010 - Jun. 2014*

Research Experience

Key Technologies of Person Profiling and Positioning Analysis for Large-scale and Multi-source Data — *Southeast University*

A research program of "Natural Science Foundation of China" — *Jan, 2018 – Present*

- Duties: Researching Theories about Entity linking by combining entity mention and knowledge; Joint extraction of multiple properties and relations about person.

A Toolkit of Natural Language Processing — *Southeast University*

A cooperative research program with an enterprise — *Oct, 2018 – Present*

- Duties: Developing a toolkit for entity recognition, entity linking, relatioin extraction, event extraction and representation learning of knowledge base.

Technologies of Entity Relation Extraction Based on Deep Learning and Reasoning — *Southeast University*

A cooperative research program with an enterprise — *Nov, 2017 – Apr, 2018*

- Duties: Researching Theories about relation extraction based on deep reinforcement learning and rules.

Coordination Mechanism and Coupling Theory of Multi Mode Public Transport Network — *Southeast University*

A research program of "National Key Basic Research Program of China" — *Sep, 2015 – Sep, 2016*

- Duties: Developing a software for graphic analysis of urban traffic network.

Theories and Key Technologies for Improving the Efficiency of Modern Urban Multimodal Public Transportation System — *Southeast University*

A research program of "Natural Science Foundation of China" — *Sep, 2014 – Sep, 2015*

- Duties: Researching and implementing the traffic assignment algorithm.

Publications & Patents

Adversarial Discriminative Denoising for Distant Supervision Relation Extraction   *AAAI 2019 (Under Review)*

Bing Liu, Huan Gao, Guilin Qi*, Shangfu Duan, Tianxing Wu, Meng Wang

Relation Extraction based on Reinforcement Learning and Reasoning (in Chinese)   *2018 Patent*

Bing Liu, Guilin Qi

Adversarial Learning based Denoising Method for Distant Supervision Relation Extraction (in Chinese)   *2018 Patent*

Bing Liu, Guilin Qi

Main Frame for Integrated Analysis of Comprehensive Transportation System (V1.0)   *2016 Software*

Bing Liu, Wei Wang

- Chinese register No. 2016SR246196

Graphic Analysis System for Comprehensive Transportation System (V1.0)   *2016 Software*

Bing Liu, Wei Wang

- Chinese register No. 2016SR245507

Graphic Analysis System for Highway Transportation System (V1.0)   *2016 Software*

Bing Liu, Wei Wang

- Chinese register No. 2016SR246046

Honors & Awards

Apr. 2013	**Meritorious Winner on the International MCM**	*top 10%*
May. 2012	First Prize of Southeast University MCM	*top 10%*
Jun. 2014	The Ten Most Influential Graduates of Southeast University	*10/3000*
Jun. 2014	Outstanding Graduates of Southeast University	*3/80*
Oct. 2018	"Chuangwei" Scholarship	*2/90*
May. 2012	"Subote" Scholarship	*1/80*
2010-2014	Several Scholarships for Excellence in Major Courses	*top 5%*

Skills

Research Interests	Information Extraction, Natural Language Processing, Machine Learning, Deep Learning, Reinforcement Learning
Programming Languages	Python, C/C++, Java, Javascript, Matlab, LaTeX, Html
Frameworks or Packages	Tensorflow, Pandas, Scikit-learn, Matplotlib, Qt, Django
Mathematic Abilities	Calculus, Advanced Algebra, Probability Theory, Statistics, Optimality Theory, Mathematical Modeling, Functions of Complex Variables, Functions of Real Variables (some other math majors)
Language Skills	English CET6