Lei Shi

State Key Laboratory of Computer Science, Institute of Software, Chinese Academy of Sciences

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Research Interests

Machine Learning, Data Mining, Natural Language Processing

Education

Institute of Software, Chinese Academy of Sciences, Beijing, China   Sep 2012 - Present

- graduate student in computer science
- work on Feature Selection, Active Learning and Short Text Understanding.

Wuhan University, Wuhan, China   Sep 2008 - Jun 2012

- B.Eng. in Computer Science
- Thesis: Container Ship Stowage Plan Based on Multi-Strategy (**Outstanding Thesis Award**)

Publications

1. Hanmo Wang, Liang Du, Peng Zhou, **Lei Shi**, Yi-Dong Shen. Convex Batch Mode Active Sampling via α-relative Pearson Divergence. The Twenty-Ninth AAAI Conference on Artificial Intelligence (**AAAI 2015**), TX, USA, Jan 2015.

2. **Lei Shi**, Liang Du, Yi-Dong Shen. Robust Spectral Learning for Unsupervised Feature Selection. The 14th IEEE International Conference on Data Mining (**ICDM 2014**), Shenzhen, China, December 14-17, 2014.

3. **Lei Shi**, Shuming Shi, Chin-Yew Lin, Yi-Dong Shen, Yong Rui. Unsupervised Template Mining for Semantic Category Understanding. The 2014 Conference on Empirical Methods in Natural Language Processing (**EMNLP 2014**), Doha, Qatar, October 26-28, 2014. (Full ORAL presentation paper)

4. Dilin Wang, **Lei Shi**, Jianwen Cao. Fast Algorithm for Approximate k-Nearest Neighbor Graph Construction. Data Mining in Networks workshop, in conjunction with ICDM 2013.

5. Wenbin Hu, Zhengbing Hu, **Lei Shi**, Peng Luo, Wei Song. Combinatorial Optimization and Strategy for Ship Stowage and Loading Schedule of Container Terminal. Journal of Computers, Vol 7, No 8(2012), 2078-2092

Research&Development Experience

Institute of Software, Chinese Academy of Sciences   Sep 2012 - Present
Research Assistant   *Beijing, China*

· worked on robust unsupervised feature selection. We proposed a unified robust feature selection framework by leveraging a robust graph embedding and a robust sparse spectral regression.

Microsoft Research Asia   Apr 2013 - Jan 2014
Research Intern   *Beijing, China*

· Worked with Dr. Shuming Shi in the Knowledge Mining Group. During the intership, I mainly focused on short text understanding with semantic knowledge extracted from large scale web corpus.

STCA, Microsoft Nov 2011 - Apr 2012

Software Development Intern *Beijing, China*

· worked with the multimedia team and my mentors were Dr. Litian Tao and Dr. Xin-jing Wang. During the internship, I worked on project which aimed improving the search relevance of Bing in image verticle.

School of Computer Science, Wuhan University June 2010 - June 2012

Research Assistant *Wuhan,China*

· Worked with Prof. Wenbin Hu on self-adaptive and intelligent strategy for yard space plan under uncertainty. I mainly focused on the stowage plan which can be formalized as a combinatorial problem. Container classification algorithm and container stacking strategy were proposed, and group-based encoding genetic algorithm was used to solve this problem.

Awards and Scholarships

- IEEE ICDM 2014 student travel award, ICDM 2014

- EMNLP 2014 student scholarsip, EMNLP 2014

- 7th Place in Alibaba Big Data Contest, 2014

- Merit Student of University of Chinese Academy of Sciences, 2014

- Outstanding graduates of Wuhan University, 2012

- Outstanding Bachelor Thesis in Hubei Province, 2012 (5 out of 278 students in our institute)

- 3rd Prize in National Undergraduate Information Security Contest, 2011

- Third prize of the mathematical modeling contest in central China, 2011

- National Scholarship, 2010 (4 out of 278 students)

- Academic Excellence scholarship of Wuhan University, 2009-2011

- Merit Student of Wuhan University, 2009-2011

Patent

CN102164125A: A system for secure communication using asgka protocol. with Ming Tang, Yujing Guo, etc. 2011

Professional Activities

External reviewer for KDD'14, PAKDD'14

Skills

C, C++, C#, Matlab, Java, Python, OpenGL, MySQL