

# Lei Shi

State Key Laboratory of Computer Science, Institute of Software, Chinese Academy of Sciences  
4# South 4th Street, Zhongguancun, Beijing, China 100080  
Email: shilei1025@gmail.com

## 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 unsupervised feature selection and automatic microblog summarization.

**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. **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.
2. **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)
3. 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.
4. 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 internship, 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**

*Research Assistant*

June 2010 - June 2012

*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**

---

- ICDM 2014 student travel award, ICDM 2014
- EMNLP 2014 student scholarsip, EMNLP 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)
- National Scholarship, 2010 (4 out of 278 students)
- Third prize of the 4th national information security competition, 2011
- Third prize of the mathematical modeling contest in central China, 2011
- Academic Excellence scholarship of Wuhan University, 2009-2011
- Merit Student of Wuhan University, 2009-2011

**Professional Activities**

---

External reviewer for KDD'14, PAKDD'14

**Skills**

---

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