

Qiang Li (李强)

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**Education**

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| (i) Northeastern University
Ph.D. candidate in Computer Science
Advisor: Prof. Jingbo Zhu | 09/2013 – Present |
| (ii) Northeastern University
M.S. in Computer Science
Supervisor: Prof. Jingbo Zhu | 09/2011 – 07/2013 |
| (iii) Northeastern University
B.S. in Computer Science | 09/2007 – 07/2011 |

Research Interests

My research interests are mainly in the algorithmic and formal aspects of Natural Language Processing. My recent work has been focused on (hierarchical) phrase-based SMT, shown as follows:

- (a) Toward better addressing word deletion for statistical machine translation
- (b) Phrase extraction and scoring for (hierarchical) phrase-based and syntax-based SMT
- (c) Using knowledge learned from deep learning for SMT

Honors and Awards

- (1) Excellent Master Thesis Award of Northeastern University, 2013. [PDF]
- (2) 3rd place of 2009 ABU Robocon.

Evaluation Tasks

- [1] NTCIR-9 Chinese-English Patent MT Track [PDF]- 2nd place (human evaluation)
Tong Xiao, Qiang Li, Qi Lu, Hao Zhang, Haibo Ding, Shujie Yao, Xiaoming Xu, Xiaoxu Fei, Jingbo Zhu, Feiliang Ren and Huizhen Wang. 2011. The NiuTrans Machine Translation System for NTCIR-9. In *Prof. of NTCIR-9 Workshop Meeting*, Tokyo, Japan, pages 593-599.
- [2] CWMT2011 English-Chinese/Chinese-English News-Domain MT Tracks [PDF] - 1st and 4th places (BLEU)
Tong Xiao, Hao Zhang, Qiang Li, Qi Lu, Jingbo Zhu, Feiliang Ren and Huizhen Wang. 2011. The NiuTrans Machine Translation System for CWMT2011. In *Prof. of The 6th China workshop on Machine Translation (CWMT)*, Xiamen, China.

Publications

- [1] Qiang Li, Yanlong He, Shuang Luan, Tong Xiao and Jingbo Zhu. 2014. Research on Word Deletion Issue in Statistical Machine Translation. *Journal of Chinese Information Processing*. (in Chinese, in press) [PDF]
- [2] Qiang Li, Kunjie Sun, Zhuo Liu, Tong Xiao and Jingbo Zhu. 2013. Technical Analysis of NiuTrans Open Source Statistical Machine Translation System. In *Proc. of CWMT 2013*, Kunming, China. (in Chinese) [PDF]
- [3] Jingbo Zhu, Qiang Li and Tong Xiao. 2013. Improving Syntactic Rule Extraction through Deleting Spurious Links with Translation Span Alignment. *Natural Language Engineering*. (in press) [PDF]
- [4] Qiang Li, Yongbai Gao, Tong Xiao, Hao Zhang and Jingbo Zhu. 2012. Learning Compact Translation Model by Composing-Based Phrase Extraction. In *Proc. of the 6th Youth Conference of Computational Linguistics*, Shanghai, China. (in Chinese) [PDF] [USAGE]
- [5] Tong Xiao, Jingbo Zhu, Hao Zhang and Qiang Li. 2012. NiuTrans: An Open Source Toolkit for Phrase-based and Syntax-based Machine Translation. In *Proc. of ACL 2012*, pages 19-24. [PDF]

Project Experience

- (1) **Core Developer** 07/2011 – Present
NiuTrans Open Source Project
Homepage: <http://www.nlplab.com/NiuPlan/NiuTrans.html>
- (2) **Principal Investigator** 09/2013 – 09/2014
Korean/Chinese Machine Translation System
Homepage: <http://www.niutrans.com:8080/mhtrans/>
- (3) **Principal Investigator** 11/2013 – Present
NiuTrans Server Toolkit
Homepage: http://www.zjyatu.com/NiuTrans_Server_Introduce.html

Software

- (1) NiuTrans: NiuTrans is an open-source statistical machine translation system. NiuTrans supports the state-of-the-art models in statistical machine translation, including the phrase-based model, the hierarchical phrase-based model, and various syntax-based models (tree-to-string/string-to-tree/tree-to-tree). Many useful features can be found in NiuTrans.
- (2) NiuTrans Cloud: NiuTrans Cloud is an online machine translation system, developed by NiuTrans Team which has 30+ years' R&D experience in MT theories and systems. NiuTrans Cloud is trained with a large-size bilingual corpus, integrating all the mainstream MT technologies. Presently its translation (Chinese/English) performance is comparable to any top MT system publicly available. NiuTrans Cloud can be a host platform for any app developments. Presently NiuTrans API is opened for free with unlimited access, supporting various systems (Windows, Linux, Android and iOS).

Skills

Computer Application and Programming:

- (i) Using Linux/Windows OS proficiently
- (ii) Programming with C/C++/Java languages
- (iii) Shell/Perl scripts in Linux
- (iv) L^AT_EX

Personal Information

- (i) Citizen of the P.R. China.
- (ii) Born Sept. 1988, Liaoning, China.
- (iii) Joined NLP lab of Northeastern University in September 2010.
- (iv) Hobbies are swimming and badminton.