

# Yijia Liu

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Ph.D. candidate, *Language analysis* group in HIT-SCIR  
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**RESEARCH INTEREST** Natural language processing, Chinese word segmentation, parsing and machine learning. My supervisor is Wanxiang Che.

**EDUCATION**

<i>Visiting Student</i> , University of Washington Supervisor: Noah A. Smith	2016.10 - present
<i>Ph.D. candidate</i> , Harbin Institute of Technology Major: Computer Science	2014.9 - present
<i>M.S.</i> , Harbin Institute of Technology Major: Computer Science, Score: 79.14 (rank top 10%)	2012.9 - 2014.7
<i>B.E.</i> , Harbin Institute of Technology Major: Computer Science, Score: 88.7 (rank top 8%)	2008.9 - 2012.7

**PUBLICATION** **Yijia Liu**, Wanxiang Che, Jiang Guo, Bing Qin, and Ting Liu. 2016. Exploring Segment Representations for Neural Segmentation Models. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI2016)*.

**Yijia Liu**, Wanxiang Che, Bing Qin, and Ting Liu. 2016. HC-search for Incremental Parsing. In *Proceedings of the 25th International Joint Conference on Artificial Intelligence (IJCAI2016)*.

**Yijia Liu**, Yue Zhang, Wanxiang Che, and Ting Liu. 2015. Transition-Based Syntactic Linearization. In *Proceedings of the 2015 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL2015)*.

**Yijia Liu**, Yue Zhang, Wanxiang Che, and Ting Liu. 2014. Domain Adaptation for CRF-based Chinese Word Segmentation using Free Annotations, In *Proceedings of the 2014 Conference on Empirical Methods in Natural Language Processing (EMNLP2014)*.

**Yijia Liu**, Wanxiang Che, and Ting Liu. 2013. Enhancing chinese word segmentation with character clustering. In *Chinese Computational Linguistics and Natural Language Processing Based on Naturally Annotated Big Data (CCL2013)*.

**Yijia Liu**, Meishan Zhang, Wanxiang Che, Ting Liu, and Yihe Deng. 2012. Micro blogs Oriented Word Segmentation System. In *Proceedings of the Second CIPS-SIGHAN Joint Conference on Chinese Language Processing*.

Meishan Zhang, Wanxiang Che, **Yijia Liu**, Zhenghua Li, Ting Liu. 2012. HIT dependency parsing: Bootstrap aggregating heterogeneous parsers. In *Notes of the First Workshop on Syntactic Analysis of Non-Canonical Language (SANCL)*.

**PROJECTS** **Language Technology Platform (LTP)** 2013.6 - present  
Project Homepage: <https://github.com/HIT-SCIR/ltp>. LTP is a software package that provides Chinese natural language processing pipeline along with web service API.

- one of the developers and the major maintainer of LTP.

- developed 4 modules including Chinese word segmentation, part-of-speech tagging, NER and dependency parsing in a perceptron algorithm framework.
- developed the RESTful API and contributed to the development of website (<http://ltp-cloud.com>).

**ZPar Project** 2013.10 - present  
 Project Homepage: <http://sourceforge.net/projects/zpar/>. ZPar is statistical multi-language parser. ZPar provides integrated systems that perform word segmentation, part-of-speech tagging, dependency parsing or phrase structure parsing.

- developed transition based non-projective dependency parser.
- developed bug fixes.

**SERVICES** *Conference Reviewer/Secondary Reviewer:* ACL 2014, CCL 2015, NLPCC 2015, NAACL 2016, IJCAI 2016, SemEval 2016.

**EMPLOYMENT** *Research Assistance, SUTD.* 2013.10 - 2014.10  
 worked with Professor Yue Zhang, on statistical machine translation, Chinese tagging and transition based dependency parsing.

*Intern Researcher and Developer, Baidu Inc., NLP Department.* 2011.7 - 2011.11  
 implemented query template extraction toolkit and built a python extension for baidu wordseg library.

**TEACHING EXPERIENCE** *TA, High level Programming Language,* 2009 Fall, 2010 Fall  
*TA, The Practice of Programming,* 2011 Spring, 2012 Spring

**TECHNIQUE SUMMARY** *Programming Languages: C/C++, Java, Python, R, Shell*  
*Operating Systems: Linux (two-years experience as part-time IT administrator)*  
*Experience: Git, SVN, Valgrind, Apache, Nginx, django (Python)*

**AWARDS** *The National Scholarship for graduate students* 2013.9  
*2010 ACM/ICPC Asia Regional Contest Hangzhou Onsite, Silver Medal* 2010.10  
*Hua Wei Scholarship* 2010.9