Yijia Liu

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

Ph.D. candidate, Harbin Institute of Technology   2014.9 - present
Major: Computer Science

Visiting Student, University of Washington   2016.10 - 2017.9
Superviser: Noah A. Smith

M.S., Harbin Institute of Technology   2012.9 - 2014.7
Major: Computer Science, Score: 79.14 (rank top 10%)

B.E., Harbin Institute of Technology   2008.9 - 2012.7
Major: Computer Science, Score: 88.7 (rank top 8%)

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).

PATTERNS

Wanxiang Che, **Yijia Liu**, Ting Liu, and Yanyan Zhao. An Incremental Training Method for Domain Adaptation in Chinese Word Segmentation, CN201510604035.0.

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 - 2014.10
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, 2018, CCL 2015-2017, NLPCC 2015-2017, 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   *TA*, High level Programming Language,   2009 Fall, 2010 Fall
EXPERIENCE   *TA*, The Practice of Programming,   2011 Spring, 2012 Spring

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

AWARDS   *First Class Award* in HeiLongJiang Provincial Science and Technology Prizes:
                 The Language Technology Platform and its Applications   2016.10
                 Hua Wei Scholarship (for graduate student)   2016.9
                 The National Scholarship for graduate students   2013.9
                 2010 ACM/ICPC Asia Regional Contest Hangzhou Onsite, Silver Medal   2010.10
                 Hua Wei Scholarship (for undergraduate student)   2010.9