Jiangming Liu

jmliunlp@gmail.com • http://leoncrashcode.github.io

EDUCATION

Beijing JiaoTong University, Beijing, China

Master of Computer Science (M.S) in Computer Science and Technology   Sep 2012 – Apr 2015
- Thesis: Japanese Case Grammar Constraints on Hierarchical Phrase-based Statistical Machine Translation
- Adviser: Professor JinAn Xu
- Research areas: natural language processing and machine translation
- Major GPA: 91.3/100

Bachelor of Computer Science (B.S) in Computer Science and Technology   Sep 2008 – Jul 2012
- Gradutaed with merit honors
- Cumulative GPA: 88.1/100

Verified Certificate of "Introduction to Finance" authorized by University of Michigan on Coursera.

RESEARCH EXPERIENCE

Singapore University of Technology Design,

Research Assistant , Natural Language Processing Group   May 2015 – present
- Supervisors: Professor Yue Zhang

Project: *Statistical Machine Translation by Syntactic Transfer*
- Characterized N-gram and syntactic language models aiming to enhance the language generation system (ZGen).
- Proposed the Lookahead features for constituent parsing (ZPar).

Northeastern University,

Visiting student, Natural Language Processing Group   Jan 2015 – Feb 2015
- Supervisors: Professor Tong Xiao

Research: *Japanese-Chinese Statistical Machine Translation*
- Integrated the Japanese case grammar (linguistics) constrains into conventional hierarchical phrase-based model (statistics), capturing complex distortion of the word orders between Japanese and Chinese.

Chinese Academy of Sciences, Institute of Computing Technology

Visiting student, Natural Language Processing Group   Nov 2013 – Dec 2014
- Supervisors: Professor Wenbin Jiang and Qun Liu

Project: *Japanese Morphology Analysis and Dependency Analysis*
- Implemented Japanese morphology analysis tool, which is based on the ChaSen.
- Implemented Japanese dependency-syntax analysis tool with Japanese case grammar, which is based on the Cabocha.

Beijing JiaoTong University, the department of computer and information technology

Graduate student, Natural Language Processing Group   Jul 2012 – Apr 2015
- Supervisors: Professor JinAn Xu

Project: *Case Dependency-String based Japanese-Chinese Machine Translation*
- Designed the case grammar constraints and the case dependency tree structure, which are fed to conventional tree-string machine translation model.

Project: *The Automatic Acquisition of Lexical Semantic Relationship*
- Designed Chinese *is-a* patterns to crawler the hyponymy relation between words on the fruitful web resource, aiming to expand hyponymy dictionary.
- Achieved best results in the task of extraction of semantic relationship in NLP&CC2012, compared to other 12 competitive systems.

Research: *The Chinese Word Similarity Computation*
- Proposed novel methods for computing the sememe similarity and the hierarchical structure similarity, and reduced the error rate from 13.58% to 10.21%.

Research: *Text Summarization*
- Implemented hidden topic Markov Model to capture the topic features.
- Designed rich sentence-level features and document-level features, which are used with topic features for text summarization.

Undergraduate student, Natural Language Processing Group   May 2011 – Jun 2012
- Supervisors: Professor JinAn Xu

Project: *Public Opinion Analysis on the Web*
- Designed web crawlers to obtain comments on Sina news and Taobao production in Alibaba.
- Designed the system to classify sentiment of sentence into positive, negative and neuter, or finely into expect, joy, love, surprise, anxiety, sorrow, angry and hate, which are referred to Ren-CECps.

PUBLICATIONS

6) **Jiangming Liu** and Yue Zhang, Shift-Reduce Constituent Parsing with Neural Lookahead Features. In *Transactions of the Association of Computational Linguistics (TACL)* . 2016

5) **Jiangming Liu** and Yue Zhang, An Empirical Comparison Between N-gram and Syntactic Language Model for Word Ordering. In *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Lisboa, Portugal, Sep 2015.

4) JinAn Xu, **Jiangming Liu**, Yufeng Chen, Yujie Zhang, Fang Ming and Shaotong Li, Integrating Case Frame into Japanese to Chinese Hierarchical Phrase-based Translation Model. In *workshop of Semantics-Driven Statistical Machine Translation (S2MT) in ACL*. Beijing, China, Jul 2015.

3) **Jiangming Liu**, JinAn Xu, Jun Xie and Yujie Zhang, Case Frame Constraints For Hierarchical Phrase-based Translation: Japanese-Chinese as an Example. In *Proceedings of the conference on Natural Language Processing & Chinese Computing (NLP&CC)*. Shenzhen, China, Dec 2014. Published in Lecture Note in Computer Science, Springer.

2) **Jiangming Liu**, JinAn Xu and Yujie Zhang, An Approach of Hybrid Hierarchical Structure for Word Similarity Computing by HowNet. In *Proceedings of the International Joint Conference of Natural Language Processing (IJCNLP)*. Nagoya, Japan, Oct 2013.

1) **Jiangming Liu**, JinAn Xu and Yujie Zhang, Summarization Based on Hidden Topic Markov Model with Multi-Feature. In *Proceedings of the conference on Natural Language Processing & Chinese Computing (NLP&CC)*. Chongqing, China, Oct 2013. Publiced on the journal of Acta Scientiarum Naturalium Universitatis Pekinensis.

ACADEMIC HONORS & AWARDS	Beijing JiaoTong University scholarship For outstanding students.	2008 – 2015
	Graduate National scholarship For outstanding scientific contributions (6 out of 230).	Oct 2013
PROFESSIONAL SERVICE	Second Reviewer of ACL 2016. Second Reviewer of EMNLP 2016. PC for conference: NLPCC (2016), CLP (2016).	
INDUSTRIAL WORK EXPERIENCE	**TorangeTek**, Chinese Academy of Science Beijing, China Intern, machine translation project • Imprememted SimHash algorithm to improve the efficiency of sentence searching. • Designed translation memory system to assist online statistic machine translation.	Feb 2012 – Aug 2012
PROGRAMMING & CODES	C++, Python, Java Code Share: https://github.com/LeonCrashCode Group Code Share: https://github.com/SUTDNLP	

[CV compiled on 2016-10-24]