

Jiangming Liu

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EDUCATION

Beijing Jiao-Tong 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, machine translation and parsing
- Major GPA: 91.3/100

Bachelor of Computer Science (B.S) in Computer Science and Technology Sep 2008 – Jul 2012

- Graduated with College 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 – May 2016

- Supervisors: Professor Yue Zhang
- Project: Statistical Machine Translation by Syntactic Transfer
- Characterized N-gram and syntactic language models and enhanced the linearization system;
- Researched on statistical machine translation with natural language generation;
- Maintained and enhanced the parsing tool ZPar and the text generation tool ZGen.

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 constraints into hierarchical phrase-based model

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;
- Implemented Japanese dependency-syntax analysis tool with Japanese case grammar.

Beijing Jiao-Tong 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 semantic constraints and the semantic tree structure on traditional statistical machine translation model
- Project: The Automatic Acquisition of Lexical Semantic Relationship
- Designed Chinese *is-a* pattern referred to English *is-a* pattern to expand synonym dictionary; Built a pattern corpus for searching hyponymy.
- Achieved excellent results and win the first place of the task of extraction of semantic relationship in NLP&CC2012.
- Research: The Chinese Word Similarity Computation
- Utilized the knowledge bases (HowNet for Chinese) for lexical similarity computing.
- Proposed methods of computing sememe relationships and hierarchical structure similarity, and reduced error similarity from 13.58% to 10.21%.
- Research: Text Summarization
- Designed two-stage framework to summarization and hybrid topic model.

Undergraduate student, Natural Language Processing Group

May 2011 – Jun 2012

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

PUBLICATIONS

- 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. Published on the journal of Acta Scientiarum Naturalium Universitatis Pekinensis.

ACADEMIC HONORS & AWARDS

Beijing Jiao-Tong University scholarship For outstanding students	2008 – 2015
Graduate National scholarship For outstanding scientific contributions (6 out of 230).	Oct 2013

OTHER WORK EXPERIENCE

TorangeTek , Chinese Academy of Science Beijing, China Intern, machine translation project	Feb 2012 – Aug 2012
<ul style="list-style-type: none"> • Designed patterns and utilized SimHash algorithm to improve the speed of similar sentence matching • Designed translation memory to assist statistic machine translation online 	

PROGRAMMING & CODES

C++, Python, Java
 Code Share: <https://github.com/LeonCrashCode>
 Group Code Share: <https://github.com/SUTDNLP>

[CV compiled on 2015-12-11]