Jiangming Liu （刘 江鸣）

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EDUCATION & HONORS

Bachelor, Computer Science, school of Computer and Information Science in Beijing Jiaotong University
Master, Computer Science, school of Computer and Information Science in Beijing Jiaotong University.

The Graduate National Scholarship (6/230)
The Scholarship in Beijing Jiaotong University
The Honorable Mention of the 35th ACM International Collegiate Programming Asia Regional Context
The Third prize of Works of science and technology of School of Computer and Information Technology

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

RESEARCH EXPERIENCE

Research Assistant, **Natural Language Processing Group, ISTP,**
Singapore University of Design and Technology   05/2015-present
Project: Statistical machine translation by syntactic transfer
• Compared the performance of N-gram and syntactic language models
• Researched on SMT with natural language generation.

Visiting student, **Natural Language Processing Group, Northeastern University**   01/2015-02/2015
Research: Japanese-Chinese statistical machine translation
• Incorporate the Japanese case grammar constrains on hierarchical phrase-based model

Visiting student, **Institute of Computing Technology, Chinese Academy of Sciences**   11/2013-12/2014
Project: Japanese Morphology Analysis and dependency analysis (11/2013-05/2014)
• Implemented Japanese morphology analysis tool based on the state-of-art open software
• Implemented Japanese dependency analysis tool based on the state-of-art open software associated with Japanese case grammar

Research Assistant, **Natural Language Processing Group, Beijing Jiaotong University**   06/2012-04/2015
Research: Multi-Document Summarization (07/2012 – 04/2015)
• Utilized hidden markov topic model and surface features to summarization
• Designed two-stage framework to summarization
• Designed hybrid topic model to summarization: topic model, surface model and topic transition model
Project: Case Dependency-String based Japanese-Chinese Machine Translation (07/2012 – present)
• Designed semantic constraints on traditional statistical machine translation model
• Designed a new semantic tree structure suitable for SMT model
Project: The Automatic Acquisition of Lexical Semantic Relationship (07/2012 – 11/2012)
• Designed Chinese *is-a* pattern referred to English *is-a* pattern to expand synonym dictionary.
• Built a pattern corpus for searching hyponymy.
• Achieved excellent result in task about extraction of semantic relationship in NLP&CC2012. The result is 0.5653 in F-value of micro average as best and 0.4264 in F-value of macro average (best is 0.5675).
Research: The Chinese Word Similarity Computation (06/2012-07/2013)
• Utilized the knowledge bases (HowNet for Chinese) for lexical similarity computing.
• Proposed a method considering sememe multi-modify relationships and concept hierarchical structure or sub-structure and the error similarity decline from 13.58% to 10.21%.

Team leader, **College Innovative Project, Beijing Jiaotong University**   05/2011-06/2012
Project: Public Opinion Analysis in Web (05/2011-06/2012)
• Researched on Word Segmentation (by ICTCLAS), Summary (by LDA), Sentiment Analysis, and Subjective Sentence Recognition.
• Designed crawlers in web to obtain comments on Sina news and Taobao production.
• Auto-classified sentiment in sentence by three parts (positive, negative, neuter) or by eight parts (expect, joy, love, surprise, anxiety, sorrow, angry and hate) referred to Ren-CECps

PUBLICATION & PAPER

• **Jiangming Liu**, Yue Zhang, *An Empirical Comparison Between N-gram and Syntactic Language Model for Word*

Ordering. In proceedings of EMNLP 2015, Lisboa, Portual, September.

- Jin'an Xu, **Jiangming Liu**, Yufeng Chen, Yujie Zhang, Fang Ming, Shaotong Li. *Integrating Case Frame into Japanese to Chinese Hierarchical Phrase-based Translation Model*. The workshop of Semantics-Driven Statistical Machine Translation in ACL 2015, Beijing, China, July.
- **Jiangming Liu,** Jin'an Xu, Jun Xie, Yejie Zhang. *Case Frame Constraints For Hierarchical Phrase-based Translation: Japanese-Chinese as an Example*. The 3rd conference on Natural Language Processing & Chinese Computing (NLP&CC 2014), Shenzhen, China, December. Published in LNCS by Springer.
- **Jiangming Liu**, Jin'an Xu, Yujie Zhang. *An Approach of Hybrid Hierarchical Structure for Word Similarity Computing by HowNet*. In proceedings of IJCNLP 2013, Nagoya, Japan, October.
- **Jiangming Liu**，Jin'an Xu，Yujie Zhang. *Summarization Based on Hidden Topic Markov Model with Multi-Feature*. The 2nd CCF Conference on Natural Language Processing & Chinese Computing (NLP&CC 2013), Chongqing, China, November. Publiced in Acta Scientiarum Naturalium Universitatis Pekinensis (ASNUP).

WORK EXPERIENCE

Intern, TorangeTek, Chinese Academy of Science   Beijing   02/2012-08/2012
- Utilized Pattern Matching and Effective Dictionary to develop the speed of SMT
- Designed Translation Memory to assist Statistic Machine Translation online

COMPUTING SKILLS

Programming language: C++, Python
Code share: https://github.com/LeonCrashCode