Lifu Huang

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Research Interests

- **Natural Language Processing**:   Information Extraction, Machine Comprehension, Generation

- **Deep Learning**:   Neural Networks & Reinforcement Learning & Embedding

Education

- **University of Illinois Urbana-Champaign (UIUC)**
  Advisor: Prof. Heng Ji
  Ph.D. Computer Science
  Sept. 2019 – Present

- **Rensselaer Polytechnic Institute (RPI)**
  Advisor: Prof. Heng Ji
  Ph.D. Computer Science
  Sept. 2014 – May 2019

- **Peking University (PKU)**
  Advisor: Prof. Li Xiaoming and Researcher Lian'en Huang
  M.S. Computer Science
  Sept. 2011 – Jul. 2014

- **Northwestern Polytechnical University (NWPU)**
  Advisor: Prof. Yunpeng Zhang
  B.Sc. Software Engineering
  Sept. 2007 – Jun. 2011

Publications

(∗ *refers to students that I ever (co-)supervised*)

- ∗ Qingyun Wang, **Lifu Huang**, Zhiying Jiang, Kevin Knight, Heng Ji, Mohit Bansal and Yi Luan. PaperRobot: Incremental Draft Generation of Scientific Ideas. To Appear in ***ACL'2019***.

- **Lifu Huang**, Heng Ji and Jonathan May. Cross-lingual Multi-Level Adversarial Transfer to Enhance Low-Resource Name Tagging. To Appear in ***NAACL'2019***.

- ∗ Diya Li, **Lifu Huang**, Heng Ji and Jiawei Han. Biomedical Event Extraction based on Knowledge-driven Tree-LSTM. To Appear in ***NAACL'2019***.

- **Lifu Huang**, Kyunghyun Cho, Boliang Zhang, Heng Ji and Kevin Knight. Multi-lingual Common Semantic Space Construction via Cluster-consistent Word Embedding. In ***EMNLP'2018***.

- Di Lu, Spencer Whitehead, **Lifu Huang**, Heng Ji and Shih-Fu Chang. Entity-aware Image Caption Generation. In ***EMNLP'2018***.

- Ge Shi, Chong Feng, **Lifu Huang**, Boliang Zhang, Heng Ji, Lejian Liao and Heyan Huang. Genre Separation Network with Adversarial Training for Cross-genre Relation Extraction. In ***EMNLP'2018***.

- ∗ Qingyun Wang, Xiaoman Pan, **Lifu Huang**, Boliang Zhang, Zhiying Jiang, Heng Ji, Kevin Knight. Narrating a Knowledge Base. In ***INLG'2018***.

- Quan Yuan, Xiang Ren, Wenqi He, Chao Zhang, Xinhe Geng, **Lifu Huang**, Heng Ji, Chin-Yew Lin and Jiawei Han. Open-Schema Event Profiling for Massive News Corpora. To Appear in ***CIKM'2018***.

- Boliang Zhang, Spencer Whitehead, **Lifu Huang**, Heng Ji. Global Attention for Name Tagging. To Appear in ***CONLL'2018***.

- **Lifu Huang**, Heng Ji, Kyunghyun Cho, Ido Dagan, Sebastian Riedel and Clare Voss. Zero-Shot Transfer Learning for Event Extraction. To appear in ***ACL'2018***.

- * Qingyun Wang, Zhihao Zhou, **Lifu Huang**, Spencer Whitehead, Boliang Zhang, Heng Ji and Kevin Knight. Paper Abstract Writing through Rewriting Mechanism. To appear in ***ACL'2018***.

- **Lifu Huang**, Bhavana Delvi, Niket Tandon, Scott Wen-tau Yih, Peter Clark. Tracking State Changes in Procedural Text: A Challenge Dataset and Models for Process Paragraph Comprehension. In ***NAACL' 2018***. *(Equally Contributed)*

- * Zhiying Zhang, Boliang Zhang, **Lifu Huang** and Heng Ji. Chengyu Cloze Text. In the 13th workshop of Building Education Applications in ***NAACL'2018***.

- Ronald Ahmed Cardenas Acosta, Thamme Gowda, Ulf Hermjakob, Nima Pourdamghani, Michael Pust, Jibiao Shen, Tian Xie, Jonathan May, Nikolaos Malandrakis, Victor Martinez, Pavlos Papadopoulos, Anil Ramakrishna, Karan Singla, Ruchir Travadi, Colin Vaz, Shrikanth Narayanan, Kenton Murray, Toan Nguyen, David Chiang, Boliang Zhang, Xiaoman Pan, Ying Lin, Di Lu, **Lifu Huang**, Tongtao Zhang, Kevin Blissett, Ni Zhang, Spencer Whitehead, Ananya Subburathinam, Diya Li, Qingyun Wang, Zhiying Jiang, Heng Ji, Ondrej Glembek, Murali Karthick Baskar, Santosh Kesiraju, Lukas Burget, Karel Benes, Igor Szoke, Karel Vesely, Jan Honza Cernocky, Derry Wijaya, Chris Callison-Burch, Hongzhi Xu, Charles Yang, Mitch Marcus, Brian Moran, Leanne Rolston, Gina-Anne Levow, Wenda Chen, Camille Goudeseune, Leda Sari and Mark Hasegawa-Johnson. ELISA System Description for LoReHLT 2018. In ***LoReHLT2018***.

- Dian Yu, **Lifu Huang**, Heng Ji. Open Relation Extraction and Grounding. In ***IJCNLP' 2017***.

- * Zhihao Zhou, **Lifu Huang**, Heng Ji. Learning Phrase Embeddings from Paraphrases with GRUs. In ***IJCNLP' 2017*** workshop of Curation and Applications of Parallel and Comparable Corpora.

- **Lifu Huang**, Avirup Sil, Heng Ji, Radu Florian. Improving Slot Filling Performance with Attentive Neural Networks on Dependency Structures. In ***EMNLP' 2017***.

- Tongtao Zhang, Spencer Whitehead, Hongzhi Li, Joseph Ellis, **Lifu Huang**, Heng Ji and Shih-Fu Chang. Improving Event Extraction through Cross-media Integration. In ***Multimedia' 2017***.

- Yixin Cao, **Lifu Huang**, Heng Ji, Xu Chen and Juanzi Li. Bridge Text and Knowledge by Learning Multi-Prototype Entity Mention Embedding. In ***ACL' 2017***. (Accepted as Long Oral Paper)

- Xiaocheng Feng, **Lifu Huang**, Bing Qin, Duyu Tang, Heng Ji and Ting Liu. Multi-Level Cross-Lingual Attentive Neural Architecture for Low Resource Name Tagging. In Journal of *Tsinghua Science and Technology*.

- Xiaomei Zhang, Yibo Wu, **Lifu Huang**, Heng Ji and Guohong Cao. Expertise-Aware Truth Analysis and Task Allocation in Mobile Crowdsourcing. In ***ICDCS' 2017***. (Accepted as Long Oral paper)

- **Lifu Huang**, Jonathan May, Xiaoman Pan, Heng Ji, Xiang Ren, Jiawei Han, Lin Zhao and James Hendler. Liberal Entity Extraction: Rapid Construction of Fine-Grained Entity Typing Systems. In ***Journal of Big Data 2017***.

- Leon Cheung, Thamme Gowda, Ulf Hermjakob, Nelson Liu, Jonathan May, Alexandra Mayn, Nima Pourdamghani, Michael Pust, Kevin Knight, Nikolaos Malandrakis, Pavlos Papadopoulos, Anil Ramakrishna, Karan Singla, Victor Martinez, Colin Vaz, Dogan Can, Shrikanth Narayanan, Kenton Murray, Toan Nguyen, David Chiang, Xiaoman Pan, Boliang Zhang, Ying Lin, Di Lu, **Lifu Huang**, Kevin Blissett, Tongtao Zhang, Heng Ji, Ondrej Glembek, Murali Karthick Baskar, Santosh Kesiraju, Lukas Burget, Karel Benes, Igor Szoke, Karel Vesely, Jan "Honza" Cernocky,

Camille Goudeseune, Mark Hasegawa Johnson, Leda Sari, Wenda Chen and Angli Liu. ELISA System Desction for LoReHLT 2017. In Proc. **LoReHLT2017**

- Mohamed Al-Badrashiny, Jason Bolton, Arun Tejavsi Chaganty, Kevin Clark, Craig Harman, **Lifu Huang**, Matthew Lamm, Jinhao Lei, Di Lu, Xiaoman Pan, Ashwin Paranjape, Ellie Pavlick, Haoruo Peng, Peng Qi, Pushpendre Rastogi, Abigail See, Kai Sun, Max Thomas, Chen-Tse Tsai, Hao Wu, Boliang Zhang, Chris Callison-Burch, Claire Cardie, Heng Ji, Christopher Manning, Smaranda Muresan, Owen C. Rambow, Dan Roth, Mark Sammons, Benjamin Van Durme. TinkerBell: Cross-lingual Cold-Start Knowledge Base Construction. In Proc. Text Analysis Conference (**TAC'2017**)

- Boliang Zhang, Xiaoman Pan, Ying Lin, Tongtao Zhang, Kevin Blissett, Samia Kazemi, Spencer Whitehead, **Lifu Huang** and Heng Ji. RPI Blender TAC-KBP 2017 13 Languages EDL System. In Proc. Text Analysis Conference (**TAC'2017**)

- **Lifu Huang**, Taylor Cassidy, Xiaocheng Feng, Heng Ji, Clare Voss and Jiawei Han. Liberal Event Extraction and Event Schema Induction. In **ACL' 2016**. (Accepted as Long Oral Paper)

- Xiaocheng Feng, **Lifu Huang**, Duyu Tang, Heng Ji, Bing Qin and Ting Liu. A Language-Independent Neural Network for Event Detection. In **ACL' 2016**.

- Xiang Ren, Wenqi He, Meng Qu, **Lifu Huang**, Heng Ji and Jiawei Han. AEFT: Automatic Fine-Grained Entity Typing by Hierarchical Partial-Label Embedding. In **EMNLP'2016**.

- Dian Yu, Xiaoman Pan, Boliang Zhang, **Lifu Huang**, Di Lu, Spencer Whitehead and Heng Ji. RPI BLENDER TAC-KBP 2016 System Description. Proc. Text Analysis Conference (**TAC 2016**)

- Yu Hong, Di Lu, Dian Yu, Xiaoman Pan, Xiaobin Wang, Yadong Chen, **Lifu Huang** and Heng Ji. RPI blender TAC-KBP 2015 System Description. Proc. Text Analysis Conference (**TAC 2015**)

- Liu Yang, Jing Jiang, **Lifu Huang**, Minghui Qiu and Lizi Liao. Generating Supplementary Travel Guides from Social Media. In Proc. **CLOING'2014**

- Qifeng Fan, Chunwei Yan,**Lifu Huang**, Lian'en Huang. Discovering Informative Contents of Web Pages. In Proc. **WAIM'2014**

- Hongjie Li, Qifeng Fan, **Lifu Huang**, Lian'en Huang. Comments-oriented Summarization in the Blogsphere Using a Two-stage Sentence Similarity Measure. In Proc. **WAIM'2014**

- **Lifu Huang**, Lian'en Huang. Optimized Event Storyline Generation based on Mixture-Event-Aspect Model. In Proc. **EMNLP'2013**

- **Lifu Huang**, Lian'en Huang. Comments-Oriented Document Summarization Based on Multi-Aspect Co-Feedback Ranking. In Proc. **WAIM'2013**

- Wenpeng Yin, **Lifu Huang**, Yulong Pei, Lian'en Huang. RelationListwise for query-focused multi-document summarization. In Proc. **COLING'2012**

Research Experience

- **Allen Institute for Artificial Intelligence (AI2)** Research Intern
  Advisor: Ronan Le Bras, Yejin Choi Jan. 2019 – May. 2019

- **Allen Institute for Artificial Intelligence (AI2)** Research Intern
  Advisor: Peter Clark, Bhavana Delvi, Scott Wen-Tau Yih Sep. 2017 – Dec. 2017

- **IBM T.J. Watson Research Center**   Research Intern
  Advisor: Avirup Sil, Radu Florian   May 2016 – Aug. 2016

- **U.S. Army Research Center**   Research Intern
  Advisor: Taylor Cassidy, Clare Voss   Apr. 2016 – May 2016

- **Microsoft Research Asia**   Research Intern
  Advisor: Jing Liu, Chin-Yew Lin   May 2015 – Aug. 2015

- **Singapore Management University**   Research Assistant
  Advisor: Prof. Feida Zhu   Jan. 2014 – Jun. 2014

Professional Activities

- **Conference Reviewer**

  - ACL'2019, NAACL'2019, EMNLP'2019, AAAI'2019, ESWC'2019, SEM'2019, NeuralGen'2019, SRW(ACL)'2019
  - ACL'2018, EMNLP'2018, AAAI'2018, COLING'2018, KG4IR (SIGIR'2018 Workshop), NLP4IF (COLING'2018 Workshop)
  - ACL'2017, EMNLP'2017, NLPCC'2017, KG4IR (SIGIR'2017 Workshop)
  - CIKM'2016, NLPCC'2016, AAAI'2016

- **Journal Reviewer**:

  - Journal of Artificial Intelligence Research (JAIR) 2019
  - Semantic Web Journal (SWJ) 2018, 2019
  - Transactions on Knowledge Discovery from Data (TKDD), 2018
  - Journal of Information Retrieval 2017, 2018
  - Journal of NeuroComputing 2018
  - Journal of Information Systems 2016, 2017
  - Journal of ACM Computing Surveys 2016, 2017

Teaching

- **Teaching Assistant**   *Introduction to Artificial Intelligence,*   2016, Spring
- **Teaching Assistant**   *Introduction to Natural Language Processing,*   2016, Fall

Awards & Honors

- National Scholarship, Peking Universtiy (Top 1%) 2013

- Special Grade Scholarship, Peking Universtiy (Top 5%) 2012, 2013, 2014

- The First Prize Scholarship, Northwestern Polytechnical University (Top 8%)   . 2009, 2010, 2011