

Liyuan Liu

"I saw the angel in the marble and carved until I set him free. - Michelangelo"

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RESEARCH INTEREST

Mining knowledge from unlabeled text & Using such knowledge to enhance natural language processing/understanding.

EDUCATION

UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN (UIUC)

PH.D. IN COMPUTER SCIENCE, EXPECTED JUNE. 2021

- Advisor: Prof. Jiawei Han

Illinois, USA

September 2016 – Present

UNIVERSITY OF SCIENCE AND TECHNOLOGY OF CHINA (USTC)

B.E. IN COMPUTER SCIENCE

- Advisor: Prof. Linli Xu
- Shortlisted for the Guo Moruo scholarship and graduated with honors

Hefei, China

September 2012 – June 2016

EXPERIENCE

Data Mining Group @ UIUC

RESEARCH ASSISTANT, ADVISOR: PROF. JIAWEI HAN

Urbana, USA

September 2016 – PRESENT

AllenNLP @ AI2

INTERN, ADVISOR: DR. MATTHEW E PETERS

Seattle, USA

May 2018 – August 2018

Social Computing Group @ MICROSOFT RESEARCH ASIA

INTERN, ADVISOR: DR. RUIHUA SONG

Beijing, China

July 2015 – May 2016

Laboratory of Semantic Computing and Data Mining @ USTC

UNDERGRADUATE RESEARCHER, ADVISOR: PROF. LINLI XU

Hefei, Anhui

October 2013 – June 2015

National Student Innovation Training Program @ USTC

PROJECT LEADER, ADVISOR: PROF. KAI XING

Hefei, Anhui

April 2013 – May 2015

PUBLICATIONS

- [1] Jingbo Shang, Xiyao Shi, Meng Jiang, **Liyuan Liu**, Timothy Hanratty and Jiawei Han. "Contrast Subgraph Mining from Coherent Cores." *arXiv preprint arXiv:1802.06189* (2018).
- [2] Carl Yang, Mengxiong Liu, Zongyi Wang, **Liyuan Liu** and Jiawei Han. "Graph Clustering with Dynamic Embedding." *arXiv preprint arXiv:1712.08249* (2017).
- [3] Jingbo Shang*, **Liyuan Liu***, Xiaotao Gu, Xiang Ren, Teng Ren and Jiawei Han "Learning Named Entity Tagger using Domain-Specific Dictionary." in *Proc. of 2017 Conf. on Empirical Methods in Natural Language Processing (EMNLP'18)*, to appear.
- [4] **Liyuan Liu**, Xiang Ren, Jingbo Shang, Jian Peng and Jiawei Han. "Efficient Contextualized Representation: Compressing Language Models for Sequence Labeling." in *Proc. of 2017 Conf. on Empirical Methods in Natural Language Processing (EMNLP'18)*, to appear.
- [5] **Liyuan Liu***, Xiang Ren*, Qi Zhu, Shi Zhi, Huan Gui, Heng Ji and Jiawei Han. "Heterogeneous Supervision for Relation Extraction: A Representation Learning Approach.", in *Proc. of 2017 Conf. on Empirical Methods in Natural Language*

Processing (EMNLP'17), Copenhagen, Denmark, Sept. 2017. (Oral, Long).

- [6] **Liu, Liyuan**, Jingbo Shang, Frank Xu, Xiang Ren, Huan Gui, Jian Peng and Jiawei Han. “Empower Sequence Labeling with Task-Aware Neural Language Model.” in *Proc. of 2018 AAAI Conf. on Artificial Intelligence (AAAI'18)*, New Orleans, LA, Feb. 2018.
- [7] Chao Zhang, **Liyuan Liu**, Dongming Lei, Quan Yuan, Honglei Zhuang, Tim Hanratty and Jiawei Han, “TrioVecEvent: Embedding-Based Online Local Event Detection in Geo-Tagged Tweet Streams”, in *Proc. of 2017 ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (KDD'17)*, Halifax, Nova Scotia, Canada, Aug. 2017. (Oral, Long).
- [8] Qi Zhu, Hongwei Ng, **Liyuan Liu**, Ziwei Ji, Bingjie Jiang, Jiaming Shen and Huan Gui. “Wikidata Vandalism Detection—The Loganberry Vandalism Detector at WSDM Cup 2017”, in *WSDM Cup 2017 Notebook Papers (WSDM Cup'17)*, Feb. 10, Cambridge, UK.
- [9] **Liyuan Liu**, Linli Xu, Zhen Wang and Enhong Chen, “Community Detection Based on Structure and Content: A Content Propagation Perspective”, in *Proc. of 2016 Int. Conf. on Data Mining (ICDM'16)*, Atlantic City, NJ, USA, Nov. 2015. (Oral, Long, AC rate: 18.1%)

HONORS & AWARDS

Highlights

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| Guo Moruo Scholarship | 2015 |
| • the Highest Honor for USTC Undergraduate Students. | |
| Google Excellent Scholarship | 2015 |
| • Only 58 Graduate and Undergraduate Students Shortlisted. | |

Scholarships

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| Samsung Scholarship | 2015 |
| • for Top 5% Students. | |
| Tencent Innovative Scholarship | 2014 |
| • for Top 5% Students. | |
| Scholarship for Outstanding Students | 2013 |
| • for Top 5% Students. | |
| Seagate Scholarship | 2013 |
| • for Top 5% Students. | |
| Scholarship for Outstanding New Students | 2012 |
| • for Top 5% Students. | |

Awards

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| 3th Place at WSDM Cup 2017 | 2017 |
| • Vandalism Detection Task. | |
| Data Mining Research Honorable Mention Award | 2017 |
| ICDM 2015 Travel Award | 2015 |

SKILLS

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| Programming | C, C++, JAVA, Python, Lua, Matlab |
| DL Packages | Torch, PyTorch |
| Languages | English, Chinese |