

# JINGJING XU

## SHORT BIO

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Jingjing Xu is a post-doc in UC Santa Barbara (UCSB), working with Lei Li and William Wang. She has been working as a research scientist in ByteDance from 2020 to 2021. During her PhD (2015-2020), she is supervised by Prof. Xu Sun, at MOE Key Laboratory of Computational Linguistics, School of Electronics Engineering and Computer Science, Peking University. She has been a visiting students (intern) in Microsoft Asia and Alibaba. She has published papers at leading conferences (e.g., ICML, NeurIPS, ACL, EMNLP), and received ACL'21 Best Paper Awards, AAAI'21 New Faculty Highlights Awards. Her research interest includes representation learning, multilingual learning, and green NLP.

## EDUCATION

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<b>Peking University</b>	2015-2020
Computational Linguistics / School of Electronics Engineering and Computer Science	Ph.D.
<b>Northwest A&amp;F University</b>	2011-2015
Software Engineering / College of Information Engineering	Bachelor

## OPEN-SOURCE TOOLKITS

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PKUSeg: A toolkit for Chinese word segmentation. It has got 5.5K stars on GitHub.  
VOLT: A toolkit for vocabulary learning. It has got over 300 stars on GitHub.

## EXPERIENCE

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<b>ByteDance AI Lab</b>	August 2020 - November 2021
<i>Research scientist</i>	<i>Beijing, China</i>

Green NLP. I got AAAI'20 new faculty highlight award.  
Green Vocabulary Learning. This work has been awarded as ACL'21 Best Paper.

<b>Alibaba</b>	October 2019 - June 2020
<i>Research Intern</i>	<i>Beijing, China</i>

Green Network Architecture Search. This work has been accepted by ICML 2021.

<b>Microsoft Research Asia</b>	June 2019 - September 2019
<i>Research Intern</i>	<i>Beijing, China</i>

Green Knowledge Usage. Our team got the first place on the official leaderboard.

## PUBLICATIONS

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- Jingjing Xu\*, Wangchunshu Zhou\*, Zhiyi Fu\*, Hao Zhou, Lei Li. A Survey on Green Deep Learning. Under review.
- Yiran Chen, Zhenqiao Song, Xianze Wu, Danqing Wang, Jingjing Xu, Jiaze Chen, Hao Zhou, Lei Li. MTG: A Benchmarking suite for Multilingual Text Generation. Under review.
- Zaixiang Zheng, Hao Zhou, Shujian Huang, Jianjie Chen, Jingjing Xu, Lei Li. Duplex Sequence-to-Sequence Learning for Reversible Machine Translation. **NeurIPS 2021**.
- Jingjing Xu, Hao Zhou, Chun Gan, Zaixiang Zheng, Lei Li. Vocabulary Learning via Optimal Transport for Neural Machine Translation. **ACL 2021 (Best Paper)**.
- Jingjing Xu, Liang Zhao, Junyang Lin, Rundong Gao, Xu Sun, Hongxia Yang. KNAS: Green Neural

Architecture Search. **ICML 2021**.

6. Shangwen Lv, Daya Guo, Jingjing Xu, Duyu Tang, Nan Duan, Ming Gong, Linjun Shou, Daxin Jiang, Guihong Cao, Songlin Hu. Graph-Based Reasoning over Heterogeneous External Knowledge for Commonsense Question Answering. **AAAI 2020**.

7. Wei Li, Ruihan Bao, Keiko Harimoto, Deli Chen, Jingjing Xu, Qi Su. Modeling the Stock Relation with Graph Network for Overnight Stock Movement Prediction. **IJCAI 2020**.

8. Jingjing Xu, Zhiyuan Zhang, Guangxiang Zhao, Xu Sun. Understanding and Improving Layer Normalization. **NeurIPS 2019**.

9. Wanjun Zhong, Jingjing Xu, Duyu Tang, Zenan Xu, Nan Duan, Ming Zhou, Jiahai Wang, Jian Yin. Reasoning over Semantic-level Graph for Fact Checking. **ACL 2019**.

10. Jingjing Xu, Yuechen Wang, Duyu Tang, Nan Duan, Qi Zeng, Pengcheng Yang, Ming Zhou and Xu Sun. Asking Clarification Questions in Knowledge-Based Question Answering. **EMNLP 2019**.

11. Jingjing Xu\*, Liang Zhao\*, Qi Zeng, Hanqi Yan, Yun Liang, Xu Sun. LexicalAT: Lexical-Based Adversarial Reinforcement Training for Robust Sentiment Classification. **EMNLP 2019**.

12. Guangxiang Zhao\*, Jingjing Xu\*, Qi Zeng, Xuancheng Ren. Review-Driven Multi-Label Music Style Classification by Exploiting Style Correlations. **NAACL 2019**.

13. Pengcheng Yang, Junyang Lin, Jingjing Xu, Jun Xie, Qi Su, Xu Sun. Specificity-driven Cascading Approach for Unsupervised Sentiment Modification. **EMNLP 2019**.

14. Pengcheng Yang, Fuli Luo, Shuangzhi Wu, Jingjing Xu, Dongdong Zhang. Learning Unsupervised Word Mapping via Maximum Mean Discrepancy. **NLPCC 2019**.

15. Shu Liu, Jingjing Xu, Xuancheng Ren, Xu Sun. Evaluating Semantic Rationality of a Sentence: A Sememe-Word-Matching Neural Network based on HowNet. **NLPCC 2019**.

16. Yibo Sun, Duyu Tang, Jingjing Xu, Nan Duan, Xiaocheng Feng, Bing Qin, Ting Liu, Ming Zhou. Knowledge-Aware Conversational Semantic Parsing over Web Tables. **NLPCC 2019**.

17. Jingjing Xu, Xuancheng Ren, Junyang Lin, Xu Sun. DP-GAN: A Diversity-Promoting Generative Adversarial Network for Generating Informative and Diversified Text. **EMNLP 2018**.

18. Jingjing Xu, Yi Zhang, Qi Zeng, Xuancheng Ren, Xiaoyan Cai, Xu Sun. A Skeleton-Based Model for Promoting Coherence Among Sentences in Narrative Story Generation. **EMNLP 2018**.

19. Liangchen Luo\*, Jingjing Xu\*, Junyang Lin, Qi Zeng, Xu Sun. An Auto-Encoder Matching Model for Learning Utterance-Level Semantic Dependency in Dialogue Generation. **EMNLP 2018**.

20. Yi Zhang, Jingjing Xu, Pengcheng Yang, Xu Sun. Learning Sentiment Memories for Sentiment Modification without Parallel Data. **EMNLP 2018**.

21. Jingjing Xu, Hangfeng He, Xu Sun, Xuancheng Ren, Sujian Li. Cross-Domain and Semi-supervised Named Entity Recognition in Chinese Social Media: A Unified Model. **TASLP 2018**.

22. Xu Sun, Xuancheng Ren, Shuming Ma, Bingzhen Wei, Wei Li, Jingjing Xu, Houfeng Wang, Yi Zhang. Training Simplification and Model Simplification for Deep Learning: A Minimal Effort Back Propagation Method. **TKDE 2018**.

23. Jingjing Xu, Xu Sun, Qi Zeng, Xuancheng Ren, Xiaodong Zhang, Houfeng Wang, Weijie Li. Unpaired Sentiment-to-Sentiment Translation Using Cycled Reinforcement Learning. **ACL 2018**.

24. Shuming Ma, Jingjing Xu, Yi Zhang, Houfeng Wang, Wei Li, Qi Su. Improving Semantic Relevance for Sequence-to-Sequence Learning of Chinese Social Media Text Summarization. **ACL 2017**.

25. Jingjing Xu, Shuming Ma, Yi Zhang, Bingzhen Wei, Xiaoyan Cai, Xu Sun. Transfer Deep Learning for Low-Resource Chinese Word Segmentation with A Novel Neural Network. **NLPCC 2017**.

26. Jingjing Xu, Xu Sun. Dependency-based Gated Recursive Neural Network for Chinese Word Segmentation. **ACL 2016**.

## HONORS & AWARDS

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**AAAI 2020 New Faculty Highlights**

**ACL 2021 Best Paper**

## SERVICES

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Area Chair: ACL 2021

Program committee member: NeurIPS, ICLR, ICML, ACL, EMNLP