

Lei Li

Contact Information

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Research Interests

Multilingual NLP and Machine Translation

Large Language Models

AI for Science: Drug Discovery, Protein Design

Education

Carnegie Mellon University, Pittsburgh, Pennsylvania USA

Ph.D., Computer Science Department, Sep. 2011

Dissertation: Fast algorithms for mining co-evolving time series.

Advisor: Prof. Christos Faloutsos

Shanghai Jiao Tong University, China

B.S., Computer Science (ACM Honored Class), Sep. 2002 - Jun. 2006

Thesis: Semantic Search based on Probabilistic Description Logic Program.

Advisor: Prof. Yong Yu

Employment

Carnegie Mellon University

since Aug 2023

Assistant Professor, School of Computer Science, Language Technology Institute

University of California, Santa Barbara

since Jul. 2021 (currently on-leave)

Associate Professor (with tenure), Computer Science Department (Jun 2023 -)

Assistant Professor, Computer Science Department (Jul 2021 - Jun 2023)

ByteDance

Mar. 2016 - Jul. 2021

The Founding Director of ByteDance AI Lab

ByteDance is the most valuable startup (by Harvard Business Review in 2022) and the developer of Tiktok, Douyin, Toutiao, Xigua, and Lark Feishu with over 1.5 billions of users in 150 countries.

Leading a group of over 120 researchers, engineers, and interns, on NLP, ML, Robotics, and Drug Discovery.

Deployed systems: (1) VolcTrans Machine Translation system which serves over one billion users in 114 languages; (2) Key technologies for ads creation on OceanEngine, an online advertising system; (3) Query-analysis technologies for Toutiao Search, serving more than hundreds of millions of users daily; (4) Large-scale video infringement detection system with more than 20 millions of videos analyzed daily; (5) Zhuge, an E-Sales Assistant system; and (6) Xiaomingbot, an automatic news writing system.

Baidu USA

Oct. 2014 - Mar. 2016

Principal Research Scientist in Institute of Deep Learning, Baidu Research

focus on deep learning and natural language understanding, deployed AI components to Baidu ads system, and Baidu maps.

University of California, Berkeley

Oct. 2011 - Oct. 2014

Postdoctoral Researcher in the EECS department, working with Prof. Stuart Russell
Bayesian inference for open universe probability models. Developed BLOG interpreter v0.9 and Swift compiler for BLOG.

Carnegie Mellon University **Oct. 2012 - Aug. 2013**

Visiting Researcher in the Machine Learning Department, working with Prof. Eric Xing

IBM T.J. Watson Research Center, Hawthorne, New York USA **May. 2010 - Aug. 2010**

Intern at Healthcare Transformation group.
Mentor: Jimeng Sun

Microsoft Research, Redmond, Washington USA, **Jun. 2009 - Aug. 2009**

Intern at Networked Embedded Computing group.
Mentor: Jie Liu and Suman Nath.

Google, Mountain View, California USA **May. 2008 - Aug. 2008**

Intern at Adspam group.
Mentor: Tim Pan.

APEX Data & Knowledge Management Lab, Shanghai, China **Jul. 2004 - Jun. 2006**

Research Assistant
Mentor: Jian Zhou and Lei Zhang

Microsoft Research Asia, Beijing, China **Aug, 2005 - Oct, 2005**

Intern, on *semantic file system* project.
Mentor: Chenxi Lin

Awards and Highlights

1. ICLR 2023 Notable Area Chair.
2. ACL 2021 Best Paper Award (1 in 3350 submissions).
3. Winning 1st places in WMT20 Machine Translation Contest for 5 language directions: Chinese-English, German-English, French-German, English-Khmer, and English-Pashto, as well as 1st places in Parallel Corpus Filtering competition for Khmer and Pashto. November, 2020.
4. 2019 Young Elite Award by China Computer Federation. (6 winners in total)
5. 2017 2nd-class Wu Wen-tsün Award in AI for “Key technologies of Internet information summarization and machine writing”, the premier award by China Association of Artificial Intelligence.
6. 2017 China Computer Federation Distinguished Speaker.
7. 2012 SIGKDD Doctoral Dissertation Award (runner-up), the Association for Computing Machinery (3 winners and runner-ups in total).
8. National Excellent Patent award in 2021, China, for patent 201811060837.X.
9. Led the development of VolcTrans, a machine translation system, with billions of requests daily, serving over a billion of active users.
10. Led the development of AI writing bot Xiaomingbot.
 - It automatically generates sports news about 17 leagues/series including the Rio Olympics (2016) and 2018 FIFA World Cup, with over 150,000 followers on social media. The work attracted over 100 coverage from news outlets including MIT Technology Review, Newsweek, ChinaDaily, and Y Combinator.
 - It is also deployed in an online advertisement platform, which helps hundreds of thousands of small and mid-sized enterprises to create better advertisements.

- Xiaomingbot also automatically generates timely missing-person announcements in text and videos for the Toutiao alert program of finding missing people with crowdsourcing, leading to more than 10,000 missing people found during 2016-2019. Multiple news coverage including GlobalTimes and Xinhuanet.
 - It automatically writes product promotion articles in the Poverty-Alleviation program to help farmers to boost agriculture product sales on Toutiao platform, helping 20,000 families. Multiple news coverage including Xinhuanet.
11. Led the development of a large scale video duplication and infringement detection system, serving over one billion active users and analyzing 20 million videos daily by the end of 2019.
 12. Led the development of key technologies of query analysis for Toutiao Search engine, which serves hundreds of millions of users daily, bringing in significant revenue.

Funding

1. Amazon Research Award. “Real-time robust simultaneous interpretation with few samples”. PI. Total: \$120,000 (including AWS credits). 7/1/2023 - 6/30/2024.
2. Software Impact Grant from the Institute for Energy Efficiency (IEE) and the Investment Group of Santa Barbara (IGSB): “Compact and Energy-efficient AI Software on Mobile Devices”, PI (with Co-PI William Wang), Total: \$100,000 (my portion: \$50,000). 10/1/2022 - 6/30/2023.
3. UCSB Faculty Research Grant: “Efficient AI Methods for De-novo Drug Molecule Design”, PI, \$13,709, 7/1/2022 - 6/30/2023.
4. UCSB-IEE-Meta Collaborative Research on AI, co-PI, my portion: \$151,380, 10/1/2021 - 6/30/2023.
5. NSF #2219627 Grant for AAI Doctoral Consortium 2022, PI, \$6,703.

Publications

REFEREED JOURNAL PAPERS

- [J6] Xinlong Wang, Rufeng Zhang, Chunhua Shen, Tao Kong, **Lei Li**. “SOLO: A Simple Framework for Instance Segmentation”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 44.11 (Nov. 2022), pp. 8587–8601.
- [J5] Ruihang Chu, Yukang Chen, Tao Kong, Lu Qi, **Lei Li**. “ICM-3D: Instantiated Category Modeling for 3D Instance Segmentation”. In: *IEEE Robotics and Automation Letters (RA-L)* 7.1 (Jan. 2022), pp. 57–64.
- [J4] Tao Kong, Fuchun Sun, Huaping Liu, Yuning Jiang, **Lei Li**, Jianbo Shi. “FoveaBox: Beyond Anchor-based Object Detection”. In: *IEEE Transactions on Image Processing* 29 (June 2020), pp. 7389–7398.
- [J3] Fei Wu, Cewu Lu, Mingjie Zhu, Hao Chen, Jun Zhu, Kai Yu, **Lei Li**, Ming Li, Qianfeng Chen, Xi Li, Xudong Cao, Zhongyuan Wang, Zhengjun Zha, Yueting Zhuang, Yunhe Pan. “Towards a new generation of artificial intelligence in China”. In: *Nature Machine Intelligence* 2 (June 2020), pp. 312–316.
- [J2] Yasuko Matsubara, Yasushi Sakurai, B. Aditya Prakash, **Lei Li**, Christos Faloutsos. “Non-linear Dynamics of Information Diffusion in Social Networks”. In: *ACM Transactions on the Web* 11.1 (Feb. 2017).
- [J1] **Lei Li**, Bin Fu, Christos Faloutsos. “Efficient Parallel Learning of Hidden Markov chain Models on SMPs”. In: *IEICE Transactions on Information and Systems* E93.D.6 (2010), pp. 1330–1342.

REFEREED CONFERENCE PAPERS

- [C139] Qingxiu Dong, Jingjing Xu, Lingpeng Kong, Zhifang Sui, **Lei Li**. “Statistical Knowledge Assessment for Large Language Models”. In: *the 37th Conference on Neural Information Processing Systems (NeurIPS)*. Dec. 2023.
- [C138] Kexun Zhang, Danqing Wang, Jingtao Xia, William Yang Wang, **Lei Li**. “ALGO: Synthesizing Algorithmic Programs with Generated Oracle Verifiers”. In: *the 37th Conference on Neural Information Processing Systems (NeurIPS)*. Dec. 2023.

- [C137] Danqing Wang, **Lei Li**. “Learning from Mistakes via Cooperative Study Assistant for Large Language Models”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Dec. 2023.
- [C136] Wenda Xu, Danqing Wang, Liangming Pan, Zhenqiao Song, Markus Freitag, William Yang Wang, **Lei Li**. “INSTRUCTSCORE: Explainable Text Generation Evaluation with Finegrained Feedback”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Dec. 2023.
- [C135] Siqi Ouyang, **Lei Li**. “AutoPlan: Automatic Planning of Interactive Decision-Making Tasks With Large Language Models”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Dec. 2023.
- [C134] Bohong Wu, Fei Yuan, Hai Zhao, **Lei Li**, Jingjing Xu. “Extrapolating Multilingual Understanding Models as Multilingual Generators”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Dec. 2023.
- [C133] Danqing Wang, Zeyu Wen, Fei Ye, **Lei Li**, Hao Zhou. “Accelerating Antimicrobial Peptide Discovery with Latent Structure”. In: *the 29th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*. Aug. 2023.
- [C132] Zhenqiao Song, **Lei Li**. “Importance Weighted Expectation-Maximization for Protein Sequence Design”. In: *Proceedings of the 40th International Conference on Machine Learning (ICML)*. July 2023.
- [C131] Kexun Zhang, Xianjun Yang, William Yang Wang, **Lei Li**. “ReDi: Efficient Learning-Free Diffusion Inference via Trajectory Retrieval”. In: *Proceedings of the 40th International Conference on Machine Learning (ICML)*. July 2023.
- [C130] Xuandong Zhao, Yu-Xiang Wang, **Lei Li**. “Protecting Language Generation Models via Invisible Watermarking”. In: *Proceedings of the 40th International Conference on Machine Learning (ICML)*. July 2023.
- [C129] Fei Yuan, Yinquan Lu, Wenhao Zhu, Lingpeng Kong, **Lei Li**, Jingjing Xu. “Lego-MT: Learning Detachable Models for Massively Multilingual Machine Translation”. In: *the 61st Annual Meeting of the Association for Computational Linguistics - Findings (ACL-Findings)*. July 2023.
- [C128] Jiangjie Chen, Wei Shi, Ziquan Fu, Sijie Cheng, **Lei Li**, Yanghua Xiao. “Say What You Mean! Large Language Models Speak Too Positively about Negative Commonsense Knowledge”. In: *the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2023.
- [C127] Siqi Ouyang, Rong Ye, **Lei Li**. “WACO: Word-Aligned Contrastive Learning for Speech Translation”. In: *the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2023.
- [C126] Wenda Xu, Xian Qian, Mingxuan Wang, **Lei Li**, William Yang Wang. “SESCORE2: Learning Text Generation Evaluation via Synthesizing Realistic Mistakes”. In: *the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2023.
- [C125] Xuandong Zhao, Siqi Ouyang, Zhiguo Yu, Ming Wu, **Lei Li**. “Pre-trained Language Models can be Fully Zero-Shot Learners”. In: *the 61st Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2023.
- [C124] Jiangjie Chen, Rui Xu, Wenxuan Zeng, Changzhi Sun, **Lei Li**, Yanghua Xiao. “Converge to the Truth: Factual Error Correction via Iterative Constrained Editing”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2023.
- [C123] Qingxiu Dong, Damai Dai, Yifan Song, Jingjing Xu, Zhifang Sui, **Lei Li**. “Calibrating Factual Knowledge in Pretrained Language Models”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Dec. 2022.
- [C122] Wenda Xu, Yilin Tuan, Yujie Lu, Michael Saxon, **Lei Li**, William Yang Wang. “Not All Errors are Equal: Learning Text Generation Metrics using Stratified Error Synthesis”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Dec. 2022.

- [C121] Xuandong Zhao, **Lei Li**, Yu-Xiang Wang. “Distillation-Resistant Watermarking for Model Protection in NLP”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Dec. 2022.
- [C120] Xiaohui Wang, Yang Wei, Ying Xiong, Guyue Huang, Xian Qian, Yufei Ding, Mingxuan Wang, **Lei Li**. “LightSeq2: Accelerated Training for Transformer-based Models on GPUs”. In: *Proceedings of The International Conference for High Performance Computing, Networking, Storage and Analysis (SC’22)*. Nov. 2022.
- [C119] Yunfei Lu, Peng Cui, Linyun Yu, **Lei Li**, Wenwu Zhu. “Uncovering the Heterogeneous Effects of Preference Diversity on User Activeness: A Dynamic Mixture Model”. In: *the 28th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*. Aug. 2022.
- [C118] Yiran Chen, Zhenqiao Song, Xianze Wu, Danqing Wang, Jingjing Xu, Jiaze Chen, Hao Zhou, **Lei Li**. “MTG: A Benchmark Suite for Multilingual Text Generation”. In: *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT Findings)*. Association for Computational Linguistics, July 2022.
- [C117] Rong Ye, Mingxuan Wang, **Lei Li**. “Cross-modal Contrastive Learning for Speech Translation”. In: *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)*. Association for Computational Linguistics, July 2022.
- [C116] Xuandong Zhao, **Lei Li**, Yu-Xiang Wang. “Provably Confidential Language Modelling”. In: *Proceedings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)*. Association for Computational Linguistics, July 2022.
- [C115] Fei Huang, Tianhua Tao, Hao Zhou, **Lei Li**, Minlie Huang. “On the Learning of Non-autoregressive Transformers”. In: *Proceedings of the 39th International Conference on Machine Learning (ICML)*. July 2022.
- [C114] Yunfei Li, Tao Kong, **Lei Li**, Yi Wu. “Learning Design and Construction with Varying-Sized Materials via Prioritized Memory Resets”. In: *IEEE International Conference on Robotics and Automation (ICRA)*. May 2022.
- [C113] Yu Bao, Hao Zhou, Shujian Huang, Dongqi Wang, Lihua Qian, Xinyu Dai, Jiajun Chen, **Lei Li**. “latent-GLAT: Glancing at Latent Variables for Parallel Text Generation”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*. May 2022.
- [C112] Qianqian Dong, Yaoming Zhu, Mingxuan Wang, **Lei Li**. “Learning When to Translate for Streaming Speech”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*. May 2022.
- [C111] Qingkai Fang, Rong Ye, **Lei Li**, Yang Feng, Mingxuan Wang. “STEMM: Self-learning with Speech-text Manifold Mixup for Speech Translation”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*. May 2022.
- [C110] Zhiyi Fu, Wangchunshu Zhou, Jingjing Xu, Hao Zhou, **Lei Li**. “Contextual Representation Learning beyond Masked Language Modeling”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*. May 2022.
- [C109] Jiangjie Chen, Rui Xu, Ziquan Fu, Wei Shi, Zhongqiao Li, Xinbo Zhang, Changzhi Sun, **Lei Li**, Yanghua Xiao, Hao Zhou. “E-KAR: A Benchmark for Rationalizing Natural Language Analogical Reasoning”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. May 2022.
- [C108] Zewei Sun, Mingxuan Wang, Hao Zhou, Chengqi Zhao, Shujian Huang, Jiajun Chen, **Lei Li**. “Re-thinking Document-level Neural Machine Translation”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. May 2022.

- [C107] Xuandong Zhao, Zhiguo Yu, Ming Wu, **Lei Li**. “Compressing Sentence Representation via Homomorphic Projective Distillation”. In: *the 60th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. May 2022.
- [C106] Zhenqiao Song, Hao Zhou, Lihua Qian, Jingjing Xu, Shanbo Cheng, Mingxuan Wang, **Lei Li**. “switch-GLAT: Multilingual Parallel Machine Translation via Code-switch Decoder”. In: *International Conference on Learning Representations (ICLR)*. Apr. 2022.
- [C105] Huiyun Yang, Huadong Chen, Hao Zhou, **Lei Li**. “Enhancing Cross-lingual Transfer by Manifold Mixup”. In: *International Conference on Learning Representations (ICLR)*. Apr. 2022.
- [C104] Jiangjie Chen, Qiaoben Bao, Changzhi Sun, Xinbo Zhang, Jiase Chen, Hao Zhou, Yanghua Xiao, **Lei Li**. “LOREN: Logic-Regularized Reasoning for Interpretable Fact Verification”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2022.
- [C103] Jiangjie Chen, Chun Gan, Sijie Cheng, Hao Zhou, Yanghua Xiao, **Lei Li**. “Unsupervised Editing for Counterfactual Stories”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2022.
- [C102] Chenyang Huang, Hao Zhou, Osmar Zaiane, Lili Mou, **Lei Li**. “Non-Autoregressive Translation with Layer-Wise Prediction and Deep Supervision”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2022.
- [C101] Zaixiang Zheng, Hao Zhou, Shujian Huang, Jiajun Chen, Jingjing Xu, **Lei Li**. “Duplex Sequence-to-Sequence Learning for Reversible Machine Translation”. In: *the 35th Conference on Neural Information Processing Systems (NeurIPS)*. Dec. 2021.
- [C100] Qingnan Jiang, Mingxuan Wang, Jun Cao, Shanbo Cheng, Shujian Huang, **Lei Li**. “Learning Kernel-Smoothed Machine Translation with Retrieved Examples”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2021.
- [C99] Dongyu Ru, Changzhi Sun, Jiangtao Feng, Lin Qiu, Hao Zhou, Weinan Zhang, Yong Yu, **Lei Li**. “Learning Logic Rules for Document-level Relation Extraction”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2021.
- [C98] Zhiyuan Zeng, Jiase Chen, Weiran Xu, **Lei Li**. “Gradient-based Adversarial Factual Consistency Evaluation for Abstractive Summarization”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2021.
- [C97] Zewei Sun, Mingxuan Wang, **Lei Li**. “Multilingual Translation via Grafting Pre-trained Language Models”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Nov. 2021.
- [C96] Tao Wang, Chengqi Zhao, Mingxuan Wang, **Lei Li**, Hang Li, Deyi Xiong. “Secoco: Self-Correcting Encoding for Neural Machine Translation”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Nov. 2021.
- [C95] Yaoming Zhu, Jiangtao Feng, Chengqi Zhao, Mingxuan Wang, **Lei Li**. “Counter-Interference Adapter for Multilingual Machine Translation”. In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Nov. 2021.
- [C94] Danqing Wang, Jiase Chen, Xianze Wu, Hao Zhou, **Lei Li**. “CNewSum: A Large-scale Chinese News Summarization Dataset with Human-annotated Adequacy and Deducibility Level”. In: *The 10th CCF International Conference on Natural Language Processing and Chinese Computing (NLPCC)*. Qingdao, China, Oct. 2021.
- [C93] Yunfei Li, Tao Kong, **Lei Li**, Yifeng Li, Yi Wu. “Learning to Design and Construct Bridge without Blueprint”. In: *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. Sept. 2021.
- [C92] Yiming Li, Tao Kong, Ruihang Chu, Yifeng Li, Peng Wang, **Lei Li**. “Simultaneous Semantic and Collision Learning for 6-DoF Grasp Pose Estimation”. In: *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. Sept. 2021.

- [C91] Wenxian Shi, Yuxuan Song, Hao Zhou, Bohan Li, **Lei Li**. “Follow Your Path: a Progressive Method for Knowledge Distillation”. In: *Proc. of ECML-PKDD*. Sept. 2021.
- [C90] Rong Ye, Mingxuan Wang, **Lei Li**. “End-to-end Speech Translation via Cross-modal Progressive Training”. In: *Proc. of INTERSPEECH*. Aug. 2021.
- [C89] Zehui Lin, Liwei Wu, Mingxuan Wang, **Lei Li**. “Learning Language Specific Sub-network for Multilingual Machine Translation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. Aug. 2021.
- [C88] Xiao Pan, Liwei Wu, Mingxuan Wang, **Lei Li**. “Contrastive Learning for Many-to-many Multilingual Neural Machine Translation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. Aug. 2021.
- [C87] Lihua Qian, Hao Zhou, Yu Bao, Mingxuan Wang, Lin Qiu, Weinan Zhang, Yong Yu, **Lei Li**. “Glancing Transformer for Non-Autoregressive Neural Machine Translation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. Aug. 2021.
- [C86] Yijun Wang, Changzhi Sun, Yuanbin Wu, Hao Zhou, **Lei Li**, Junchi Yan. “UniRE: A Unified Label Space for Entity Relation Extraction”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. Aug. 2021.
- [C85] Runxin Xu, Tianyu Liu, **Lei Li**, Baobao Chang. “Document-level Event Extraction via Heterogeneous Graph-based Interaction Model with a Tracker”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. Aug. 2021.
- [C84] Jingjing Xu, Hao Zhou, Chun Gan, Zaixiang Zheng, **Lei Li**. “Vocabulary Learning via Optimal Transport for Neural Machine Translation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL)*. Aug. 2021. ACL Best Paper Award (1/3350).
- [C83] Chi Han, Mingxuan Wang, Heng Ji, **Lei Li**. “Learning Shared Semantic Space for Speech-to-Text Translation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. Aug. 2021.
- [C82] Changzhi Sun, Xinbo Zhang, Jiangjie Chen, Chun Gan, Yuanbin Wu, Jiaze Chen, Hao Zhou, **Lei Li**. “Probabilistic Graph Reasoning for Natural Proof Generation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. Aug. 2021.
- [C81] Danqing Wang, Jiaze Chen, Hao Zhou, Xipeng Qiu, **Lei Li**. “Contrastive Aligned Joint Learning for Multilingual Summarization”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. Aug. 2021.
- [C80] Liwei Wu, Shanbo Cheng, Mingxuan Wang, **Lei Li**. “Language Tags Matter for Zero-Shot Neural Machine Translation”. In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL) - Findings*. Aug. 2021.
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- [C77] Tao Wang, Chengqi Zhao, Mingxuan Wang, **Lei Li**, Deyi Xiong. “Autocorrect in the Process of Translation — Multi-task Learning Improves Dialogue Machine Translation”. In: *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies: Industry Papers (NAACL-HLT)*. Online: Association for Computational Linguistics, June 2021, pp. 105–112.
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- [C71] Xinlong Wang, Rufeng Zhang, Chunhua Shen, Tao Kong, **Lei Li**. “Dense Contrastive Learning for Self-Supervised Visual Pre-Training”. In: *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. June 2021. Oral.
- [C70] Yutong Xie, Chence Shi, Hao Zhou, Yuwei Yang, Weinan Zhang, Yong Yu, **Lei Li**. “MARS: Markov Molecular Sampling for Multi-objective Drug Discovery”. In: *International Conference on Learning Representations (ICLR)*. May 2021. Spotlight, 5.6% acceptance rate.
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- [C67] Qianqian Dong, Mingxuan Wang, Hao Zhou, Shuang Xu, Bo Xu, **Lei Li**. “Consecutive Decoding for Speech-to-text Translation”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2021.
- [C66] Qianqian Dong, Rong Ye, Mingxuan Wang, Hao Zhou, Shuang Xu, Bo Xu, **Lei Li**. “Listen, Understand and Translate: Triple Supervision Decouples End-to-end Speech-to-text Translation”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2021.
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- [C64] Jianze Liang, Chengqi Zhao, Mingxuan Wang, Xipeng Qiu, **Lei Li**. “Finding Sparse Structure for Domain Specific Neural Machine Translation”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2021.
- [C63] Qingyang Wu, **Lei Li**, Zhou Yu. “TextGAIL: Generative Adversarial Imitation Learning for Text Generation”. In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2021.
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Talks

1. CMU LTI Colloquium: Empowering Responsible Use of Large Language Models. September 8, 2023.
2. Johns Hopkins University CLSP Seminar: Empowering Responsible Use of Large Language Models. Baltimore, MD. September 1, 2023.
3. Amazon AWS AI Invited Talk: Learning When to Translate for Streaming Speech. Lego-MT: Learning Detachable Models for Massive Multilingual Machine Translation. Santa Clara, CA. August 4, 2023.
4. CASIS Invited Talk: Trustworthy Large Language Models. 27th Annual Workshop of LLNL Center for Advanced Signal and Imaging Sciences. August 3, 2023.
5. Guest Lecture: Breaking Language Barriers with Massive Multilingual Machine Translation. IIIS at Tsinghua University. May 23, 2023.
6. UCSD CS Invited Talk: Breaking Language Barriers with Massive Multilingual Machine Translation. May 12, 2023.
7. UCLA CS Invited Talk: Breaking Language Barriers with Massive Multilingual Machine Translation. May 11, 2023.
8. UCSB PSTAT Seminar: Breaking Language Barriers with Massive Multilingual Machine Translation. April 12, 2023.
9. Invited Talk at Pepperdine University: Breaking Language Barriers with Massive Multilingual Machine Translation. March 21, 2023.
10. Invited Talk: Right for the Right Reasons: Explainable Neural Reasoning, Shanghai Jiao Tong University, Nov. 8, 2022.
11. Talk: Deep Generative Models for Drug Discovery, Responsible Machine Learning Summit, UCSB, Oct 7, 2022.
12. CCF-ADL Tutorial: Pre-training for Neural Machine Translation. August 18, 2022 (online).
13. Invited Talk: Breaking the Language Barriers with Neural Machine Translation. IEEE Central Coast. Santa Barbara, August 17, 2022.

14. Invited Talk: Multi-objective Drug Molecule Generation, the AI for Health Forum of BAAI Conference. June 2, 2022.
15. Keynote: Challenges and Progress of Massive Multilingual Machine Translation. Pre-ACL 2022 Online Meetup. May 20, 2022.
16. Invited Talk: Challenges and Progress of Multilingual Machine Translation. Meta (Facebook) AI. April 15, 2022.
17. Invited Talk: Training Privacy-preserving Language Models. at International Conference on the next-generation AI risk governance and policies. February 18, 2022.
18. Invited Talk: Efficient Machine Translation. at Apple Inc. December 15, 2021.
19. Keynote: Efficient Machine Translation. at the 17th China Conference on Machine Translation. Xining, Qinghai, China. October 10, 2021.
20. ACL 2021 Tutorial: Pre-training for Neural Machine Translation (online), August 1, 2021.
21. Invited talk: Speech Translation – Streamlining Research and Product Innovation. the NLP forum of 2021 Global AI Technology Conference, Zhejiang Hangzhou, June 6, 2021.
22. Guest Lecture: Data mining for Personalized Recommendation Systems, undergraduate Data Mining class, Tsinghua University. June 4, 2021.
23. Talk: Interpretable, Controllable, and Scalable Natural Language Generation, the Natural Language Generation workshop (online), May 28, 2021.
24. Guest Lecture: Deep Generative Models for Text and Beyond. Deep Learning course. Department of Computer Science, Tsinghua University. April 28, 2021.
25. Guest Lecture: Deep Generative Models for Text and Beyond. Advanced Machine Learning course. Department of Computer Science, Tsinghua University. April 14, 2021.
26. Talk: Recent Advances in Machine Writing and Translation – Algorithms and Challenges, GTC - China, December 19, 2020.
27. Invited Talk: Controllable and Interpretable Machine Learning for Natural Language Generation. Department of Computer Science. Nanjing University. December 11, 2020.
28. Guest Lecture: Deep Latent Models for Natural Language Generation. Graduate course in Machine Learning, Department of Computer Science, Tsinghua University. December 8, 2020.
29. Invited Talk: Is it a fact? – Logic Enhanced Neural Reasoning. Cognitive Intelligence workshop, Shanghai, December 8, 2020.
30. Keynote Talk: Scalable, Controllable, and Interpretable Machine Learning for Natural Language Generation. NeurIPS 2020 Meetups in Beijing. December 6, 2020.
31. Guest Lecture: Scalable, Controllable and Interpretable Machine Learning for Natural Language Generation. undergraduate class in CS, IIIS, Tsinghua University. October 8, 2020.
32. Invited Talk: Constrained Text Generation – Monte Carlo Meets Neural Nets. Tsinghua University, Institute of Inter-disciplinary Information Sciences. October 8, 2020.
33. Guest Lecture: Learning Deep Latent Models for Text Sequences, graduate class in Machine Learning, Tsinghua University, April 29, 2020.
34. Talk at ICLR 2020: Learning Deep Latent Models for Text Sequences. April 29, 2020.
35. Guest Lecture, Deep Generative Models for Text Generation, graduate class in Machine Learning, Tsinghua University, November 26, 2019.
36. Invited Talk: Deep Text Generation: Models and Applications, School of Data Science and Engineering, East China Normal University, Shanghai, China, November 8, 2019.
37. Industrial Invited Talk at CIKM 2019: Multi-lingual cross-modal machine translation at global scale, Beijing, China, November 7, 2019.
38. EMNLP 2019 Tutorial: Discreteness in Natural Language Processing, Hong Kong, November 4, 2019. (3 hr, with Lili Mou and Hao Zhou)
39. CCF-ADL107/NLPCC 2019 Tutorial: Deep Generative Models for Text Generation, Dunhuang, China, Oct 9, 2019. (3 hr, with Hao Zhou).

40. Invited Talk at IJCAI 2019 Industrial Days: Deep Text Generation: Models and Applications, Macau, China, August 2019.
41. Invited Talk: Machine Writing and Constrained Text Generation, CCF-AI workshop at Beijing Jiao Tong University, June 2019.
42. Guest Lecture, Deep Natural Language Generation, graduate class in Machine Learning, Tsinghua University, May 15, 2019.
43. Guest Lecture, Deep Natural Language Generation, graduate class in NLP, Peking University, May 8, 2019.
44. Guest Lecture, Personalized Recommendation Systems in Practice, undergrad Data Mining class, Tsinghua University. April 26, 2019.
45. Invited Talk: Machine Writing and Constrained Sequence Generation, Arizona State University, Tempe, AZ, April 2019.
46. Invited Talk, Constrained Sentence Generation, School of Data Science, Fudan University, Shanghai, March 2019.
47. Invited Talk: Recent Progress in Natural Language Representation Learning and Generation, InfoQ AIcon, Beijing, December 21, 2018.
48. Invited Talk: Learning to generate better news, translation, and advertisement. CSDN AI NEXTCon, Beijing, November 13, 2018.
49. Invited Talk: AI for Content Creation and Interaction, Department of Computer Science, University of Illinois Urbana Champaign, November 2018.
50. Guest Lecture, Deep Learning for Language Understanding and Generation, graduate Machine Learning class, Tsinghua University. November 13, 2018.
51. Invited Talk: AI for Content Creation and Interaction, Viterbi School of Engineering, University of Southern California, October 2018.
52. Invited Talk: Incubating Innovative IT Talents - an academic-industry fused perspective. Computer Education Conference, CCF, Hefei, China, July 2018.
53. Guest Lecture, Deep Learning for Language Understanding and Generation, graduate Machine Learning class, Tsinghua University. April 25, 2018.
54. Invited Talk: AI for Content Creation and Discovery, Computer Science Department, University of California at Davis, California, April 2018.
55. Invited Talk: Machine Writing and Language Generation, Computer Science Department, Fudan University, March 2018.
56. Invited Talk: AI for Content Creation and Interaction, ShanghaiTech University, March 2018
57. Invited Talk: AI for Content Creation and Interaction, Southeast University, March 2018
58. Invited Talk: AI for Content Creation and Interaction, Nanjing University, March 2018
59. Invited Talk: AI for Content Creation and Interaction, Nanjing Normal University, March 2018
60. Invited Talk: AI-assisted Content Creation, CAAI MIFS (Machine Intelligence Frontier Symposium), Beijing, October 2017.
61. Invited Talk: AI-Assisted Content Creation and Commenting, Institute of Computing at China Academy of Science, Beijing, September 2017.
62. Invited Talk: AI-powered Information Creation, Distribution, and Interaction, AI Computing Conference, Beijing, September 2017.
63. Invited Talk: AI Research at Toutiao, Data Science in China, KDD, Halifax, August 2017.
64. Guest Lecture, Deep Learning for Question Answering, graduate Machine Learning class, Tsinghua University. March 13, 2017.
65. CCF-ADL/NLPCC 2016 Tutorial: Deep Learning for Answering Questions, Kunming, China, December 2016.
66. Invited Talk: Learning to Understand and Generate Language, AIWorld Conference, Beijing, October 2016.

67. Invited Talk: Status and Challenges towards general AI. China Conference on Artificial Intelligence. Beijing, August 26-27, 2016.
68. Invited Talk: AI for Content Creation and Sharing, CCF-GAIR (Global Conference on AI and Robotics), Shenzhen, August 2016.
69. Invited Talk: Learning for Dialog and Question Answering, Shanghai Jiao Tong University, Shanghai, June 2016.
70. Invited Talk: Large-scale Learning for Language Understanding, University of Science and Technology in China, Hefei, May 2016.
71. Invited Talk: Learning for Language and Visual Understanding, CAAI-GAITC (Global AI Technology Conference), Beijing, April 2016.
72. Invited Keynote: Deep Learning – Towards More Intelligent Machines, China Computer Federation Young Computer Scientists and Engineers Forum, April 2015.
73. BLOG language and compiled inference. Computer Science department, Stanford University, and separately at Tsinghua University 2015.
74. BLOG language and efficient inference. Berkeley Programming Language Retreat, Santa Cruz, 2014
75. Scalable Probabilistic Inference for Complex Dynamical Models. Invited talk at Ohio State University, New York University, Emory University, Google (Mountain View), 2014.
76. Invited Fish Bowl Seminar: Fast Algorithms for Mining Co-evolving Time Series. , Texas A&M University, 2013.
77. DBLOG: an Open Universe Probabilistic Programming Language for Relational Modeling, The Second EITA Young Investigator Conference, Palo Alto, CA, July 2012.
78. Forecasting with Cyber-physical Interactions in Data Centers. CMU Parallel Data Lab. September 2011.
79. Proactive Detection of Insider Threats with Graph Analysis and Learning (CMU representative), DARPA ADMAS program kickoff conference, Arlington, VA. June 2011.
80. Fast Algorithms for Mining Co-evolving Time Series. Case Western Reserve University, PARC, Yahoo!, SIAT 2011.
81. KDD 2010 Tutorial: Indexing and Mining Time Sequences. Washington DC, KDD 2010. (with Christos Faloutsos)
82. Parsimonious Linear Fingerprinting for Time Series. CMU machine learning lunch, 2010.
83. PLiF: Parsimonious Linear Fingerprinting for Time Series. Zhejiang University, China. September 2010.
84. Fast Algorithms for Mining Co-evolving Time Series. SMU, NUS, HKUST, SJTU, December 2009.
85. Mining with Missing Values in Coevolving Time Series. MSR Redmond, May 2009.
86. Efficient Parallel Learning of Linear Dynamical Systems on SMPs. CMU machine learning lunch, 2008.

Teaching Experience

1. CMU 11868: Large Language Model Systems, Spring 2024.
2. CMU 11737: Multilingual Natural Language Processing, Fall 2023.
3. UCSB CS190I: Deep Learning, undergraduate, Winter 2023.
4. UCSB CS291K: Machine Learning, graduate, Fall 2022.
5. UCSB CS165B: Machine Learning (focus on Deep Learning), undergraduate, Winter 2022.
6. UCSB CS291K: Deep Learning for Machine Translation, graduate, Fall 2021.
7. Lecturer in Probabilistic Programming for Advanced Machine Learning Summer School, Portland, OR, USA, 2014. (total 12hrs lecture for two weeks)
8. Teaching Assistant for
 - 10701 Machine Learning, instructor Ziv Bar-Joseph, CMU, Spring 2009.
 - 15415 Database Applications, instructor Christos Faloutsos, CMU, Fall 2008.
 - Modern DBMS Implementation, SJTU, Fall 2005.

Operating System Project(nachos), SJTU, Fall 2005.
Modern Compiler Implementation, SJTU, Spring 2005.

Students Advising

CURRENT GRADUATE STUDENTS:

1. Jielin Qiu (PhD student at CMU, 2023 -)
2. Siqi Ouyang (PhD student at UCSB, 2021 -)
3. Wenda Xu (PhD student at UCSB, co-advised w/ William Wang, 2021 -)
4. Xuandong Zhao (PhD student at UCSB, co-advised w/ Yu-Xiang Wang, 2021 -)
5. Kexun Zhang (PhD student at UCSB, co-advised w/ William Wang, 2022 -)
6. Zhenqiao Song (PhD student at UCSB, 2022 -)
7. Danqing Wang (PhD student at UCSB, 2022 -)
8. Brian Tufts (Master, CMU LTI , 2023 -)
9. Srinivas Gowriraj (Master, CMU LTI, 2023 -)
10. Yee Man Choi (Master, CMU LTI, 2023 -)
11. Zihan Ma (Master student at UCSB, 2022 -)
12. Vihaan Rajendiran (Master student at UCSB, 2022 -)

UNDERGRADUATE STUDENTS AT UCSB:

1. Tianrui Gu (2023)
2. Kaie Chen (2023)
3. Jenny Wu (2023)
4. Chinmay Dandekar (2023)
5. Yufei Song (2023)
6. Saisidharth Majeti (2022 - 2023)
7. Jamie Wang (2022)
8. Ahmed Elkordy (2022)

OTHER MENTEES:

1. Isaac Sloan (UC Leeds Scholar, June 2022 - Aug 2022)
2. Qingxiu Dong (Jan 2022 - June 2023)
3. Jiangjie Chen (intern, April 2020 - May 2023)
4. Yunfei Li (intern at Bytedance, Jul. 2020 - Aug 2021, joint w/ Tao Kong, currently Ph.D. student at Tsinghua)
5. Meihua Dang (intern at Bytedance, Jan 2021 - Aug 2021, currently master student at UCLA CS)
6. Hong Zhao (intern at Bytedance, joint w/ Yuwei Yang, May 2021 - July 2021)
7. Jiarui Lu (intern at Bytedance, joint w/ Yuwei Yang, Dec. 2020 - July 2021, current at Mila)
8. Peiyuan Zhang (intern at Bytedance, joint w/ Xunpeng Huang, Oct 2020 - May 2021)
9. Zaixiang Zheng (intern at Bytedance, joint w/ Hao Zhou, Sep 2020 - June 2021, currently researcher at Bytedance, MLNLC group)
10. Yaoming Zhu (intern at Bytedance, joint w/ Mingxuan Wang, 2020 - Mar. 2021, currently ML engineer at Bytedance, MLNLC group)
11. Lihua Qian (intern at Bytedance, joint w/ Hao Zhou, 2020 - Mar. 2021, currently ML engineer at Bytedance, MLNLC group)
12. Chi Han (intern at Bytedance, joint w/ Mingxuan Wang, July 2020 - July 2021, currently Ph.D. student at UIUC)
13. Yutong Xie (intern at Bytedance, joint w/ Hao Zhou, Feb 2020 - Jan 2021, currently PhD student at UMich)

14. Zehui Lin (intern at Bytedance, joint w/ Mingxuan Wang, April 2020 - Jan 2021, now ML engineer at ByteDance, MLNLC group)
15. Danqing Wang (intern at ByteDance, joint w/ Jiaze Chen, April 2020 - Jan 2021, now ML engineer at ByteDance, MLNLC group)
16. Ya Jing (intern at Bytedance, joint w/ Tao Kong, Jan. 2020 - Jun. 2021, currently researcher at Bytedance, MLNLC group)
17. Quanyu Long (intern at ByteDance, joint w/ Mingxuan Wang, now Ph.D. student at NTU Singapore)
18. Danlu Chen (intern at Bytedance, joint w/ Hao Zhou, Oct 2019 - Jan 2020, now Ph.D. student at UCSD)
19. Mingxuan Jing (intern at Bytedance, joint w/ Tao Kong, Oct 2019 - Jun. 2021, currently researcher at CAS Institute of Software)
20. Jingjing Gong (intern at ByteDance, joint w/ Hao Zhou, July 2019 - May 2020)
21. Xinlong Wang (intern at Bytedance, joint w/ Tao Kong, July 2019 - May 2021, now Ph.d. student at U Adelaide)
22. Zewei Sun (intern at ByteDance, joint w/ Mingxuan Wang, June 2019 - June 2020, now ML engineer at ByteDance MLNLC group)
23. Zhenqiao Song (intern at Bytedance, joint w/ Jiaze Chen, June 2019 - June 2020, now software engineer at ByteDance, MLNLC group)
24. Yuxuan Song (intern at Bytedance, joint w/ Hao Zhou, June 2019 - April 2020, was software engineer at ByteDance, MLNLC group, now PhD student at Tsinghua Univ.)
25. Rong Ye (intern at Bytedance, joint w/ Hao Zhou, April 2019 - June 2020, now software engineer at ByteDance, MLNLC group)
26. Chi Sun (intern at Bytedance, joint w/ Hao Zhou, April 2019 - Dec 2019)
27. Lin Qiu (intern at Bytedance, joint w/ Hao Zhou, Jan 2019 - Dec 2019, now at Amazon Shanghai)
28. Yu Bao (intern at Bytedance, joint w/ Hao Zhou, Jan 2019 - Nov 2019, now researcher at Bytedance)
29. Qi Zeng (intern at Bytedance, summer 2019, joint w/ Hao Zhou, currently Ph.D. student at UIUC)
30. Qianqian Dong (intern at ByteDance, joint w/ Mingxuan Wang, Nov. 2018 - Jun. 2021, now researcher at ByteDance MLNLC group)
31. Yao Fu (intern at Bytedance Dec. 2017 - Jun. 2018, now Ph.D. student at University of Edinburgh)
32. Shiyi Han (intern at Bytedance, now software engineer at Apple.)
33. Freda(Haoyue) Shi (intern at Bytedance, joint w/ Hao Zhou, PKU undergrad, now Ph.D. student at TTIC)
34. Yunfei Lu (intern, 2019, now Ph.D. student at Tsinghua Univ.)
35. Wenxian Shi (intern at Bytedance April 2018 - June 2019, joint w/ Hao Zhou, was ML engineer at Bytedance, MLNLC group, now PhD. student at MIT)
36. Ning Miao (intern at Bytedance March 2018 - June 2019, joint w/ Hao Zhou, was ML engineer at Bytedance, now Ph.D. student at Oxford Univ.)
37. Bohan Li (intern at Bytedance 2017, and Jan 2020 - May 2020, currently SDE at Bytedance.)
38. Ying Zeng (intern at Bytedance Oct 2017 - June 2018, currently SDE at Bytedance, MLNLC group)
39. Wenxiao Wang (intern at Bytedance May - Nov 2018, currently PhD student at UMD)
40. Chengqi Zhao (intern at Bytedance June 2017 - September 2017, currently SDE at Bytedance, MLNLC group)
41. Gen Li (intern at Bytedance April 2016 - December 2016, currently SDE at Bytedance)
42. Fei Jiang (intern at Baidu, master from Tsinghua, April 2015 - Oct 2015, now at JP Morgan Chase)
43. Zefu Lu (Intern at Baidu, UIUC undergrad, May 2015 - Aug 2015)
44. Zihang Dai (Intern at Baidu, CMU, June 2015 - Aug 2015, now Research Scientist at Google)
45. Hieu Pham (intern at Baidu, Stanford master, June 2015 - Sep 2015, now Research Scientist at Google)
46. Di Zhou (intern at Baidu, from U. Texas, May 2015 - Aug 2015)

47. Da Tang (intern at UC Berkeley, July 2014 - Nov 2014, currently Research Scientist at ByteDance.)
48. Lea Jia (intern at UC Berkeley, Feb 2014 - May 2014, Google)
49. Daniel Liu (intern at UC Berkeley, Feb 2014 - Oct 2014)
50. Tejas Srinivasan (intern at UC Berkeley, Oct 2013 - May 2014)
51. Boyi Chen (intern at UC Berkeley, Sep 2013 - Oct 2014, currently software engineer at LinkedIn)
52. Christopher Xie (intern at UC Berkeley, Aug 2013 - May 2014 currently at Meta Reality Lab)
53. Yi Wu (intern at UC Berkeley, Aug 2013 -2014 (joint w/ Stuart Russell), summer intern 2016 at Bytedance, currently faculty at Tsinghua)
54. Simon Du (intern at UC Berkeley, Jul 2013 - Jan 2015, currently faculty at U. Washington)
55. Zhiting Hu (intern at CMU, Jul 2013 - Aug 2013, currently faculty at UCSD)
56. Hao Fu (intern at CMU, Feb 2013 - May 2013)
57. Yiyao Jiang (intern at CMU, Feb 2013 - May 2013)
58. Bharath Ramsundar (intern at UC Berkeley, Jun 2012 - Dec 2013, later Ph.D. student at Stanford)
59. Gerald Fong (intern at UC Berkeley, Sep 2012 - May 2013, currently at Instagram)
60. Sharad Vikram (intern at UC Berkeley, Aug 2012 - May 2013, currently at Google)
61. Aaron Wong (intern at UC Berkeley, Jul 2012 - June 2013, current software engineer at Google)
62. Cheng Lai Victor Huang (intern at UC Berkeley, Sep 2012 - Jan 2013, Amazon)
63. Huanhuan Wang (intern at CMU, joint w/ Siyuan Liu, sp 2012, currently at Google)
64. Shenghao Huang (intern at CMU, joint w/ Siyuan Liu, sp 2012, currently at LinkedIn)
65. Mark Rogers (intern at UC Berkeley, Jan 2012 - Dec 2013, joint w/ Stuart Russell)
66. Akihiro Matsukawa (intern at UC Berkeley, Oct 2011 - Jan 2012, joint w/ Stuart Russell, currently at D.E. Shaw)

Exam/Thesis Committee

THESIS COMMITTEE:

1. Zhiqing Sun (CMU PhD)
2. Weixi Feng (UCSB PhD), MAE 2023.
3. Ta-Chung Chi (CMU PhD), proposal 2023.
4. Kha-Dinh Luong (UCSB PhD), MAE 2023
5. Qi Zeng (UIUC PhD), Defense 2023.
6. Yingrui Yang (UCSB PhD), MAE 2022.
7. Tsu-Jui Fu (UCSB PhD), MAE 2022, Proposal 2023.
8. Xinlu Zhang (UCSB PhD), MAE 2022, Proposal 2023.
9. Shiyang Li (UCSB PhD), MAE, Proposal 2022, Defense, 2023.
10. Yuqing Zhu (UCSB PhD), MAE, 2022, Defense 2023.
11. Apoorva Jakalannanavar (UCSB, master thesis), 2022

Professional Service

ASSOCIATE EDITOR/ACTION EDITOR:

1. Transactions on Machine Learning Research (TMLR), 2023 - .
2. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021 - .

SENIOR PC AND ORGANIZERS:

1. AAAI SPC 2019, 2020, 2023. Doctoral Consortium Co-Chair 2022, 2023.
2. ACL Area Chair 2020. Senior Area Chair 2023.
3. ACL Senior Area Chair 2023.
4. CIKM Industrial Track SPC 2019.

5. CCAI (China Conference on Artificial Intelligence): Co-Chair for Young Scientist Forum 2017, Chair for Forum on Innovative Applications of AI 2019,
6. CAAI-IEEE MIFS (Machine Intelligence Frontier Symposium) Co-Chair, 2016.
7. CAAI Byte Tech AI Symposium, PC Co-Chair, Beijing, January 2019.
8. EMNLP Area Chair 2019, 2020, 2021, 2022, 2023.
9. ICLR Area Chair 2023, 2024.
10. ICML Area Chair 2023.
11. IJCAI SPC 2017. Area Chair 2023.
12. KDD SPC 2022, 2023.
13. KDD Cup Co-Chair 2017, Hands-on Tutorial Co-Chair 2018, 2023, Sponsorship Co-Chair 2019, 2020.
14. NAACL Senior Area Chair 2024.
15. NeurIPS Area Chair 2021, 2022, 2023.
16. NLPCC 2022 Area Chair on Machine Translation.
17. SDM SPC 2022.
18. WSDM Cup Co-Chair 2022.
19. Organizer for 2018 Byte Cup International Machine Learning Competition. Task: News Title Generation. 1072 teams with 2175 participants from 35 countries. (Hosted by CAAI, ByteDance, & Tsinghua Knowledge Engineering Lab), link
20. Organizer for 2016 Byte Cup International Machine Learning Competition. Task: Expert Recommendation for Community Questions. 1000 teams with 1600 participants. (Hosted by CAAI, ByteDance, & Tsinghua Knowledge Engineering Lab), link

PROGRAM COMMITTEE:

1. KDD 2015, 2016, 2019, 2020, 2021.
2. ICDM 2015 Demos.
3. SDM 2013, 2014.
4. ICML 2014, 2022.
5. ECMLPKDD 2014, 2015.
6. NeurIPS 2016, 2020.
7. ICLR 2021, 2022.
8. CIKM 2017.
9. ACL 2020, 2021.
10. NAACL 2018
11. COLING 2016
12. NLPCC 2019
13. AAAI 2017, 2018, 2019
14. IJCAI 2011, 2013, 2016, 2017, 2019

JOURNAL REVIEWER: JAIR 2022, JMLR 2022, 2023, TACL 2021, 2022, 2023, Transactions on Multimedia 2014, TVCJ 2014, Neural Computing 2013, TOSN 2013, 2014, TKDE 2012 - 2016, SADM 2012, Data Mining and Knowledge Discovery 2011, 2012, 2014, TOMCCAP 2009.

PROPOSAL REVIEWER: Reviewer for US National Science Foundation proposal, 2010. Reviewer for European Research Council, European Union. 2022.

INTERNAL SERVICE:

1. Undergraduate Curriculum committee of Computer Science Department, UCSB, 2022-2023.
2. Graduate Admission committee of Computer Science Department, UCSB, 2022-2023.
3. PR committee of Computer Science department, UCSB. 2021-2022.

Media Coverage

1. Open Source Neural Speech Translation Toolkit, Slator.com, Jan 7, 2021. [link](#)
2. Meet ByteDance AI's Xiaomingbot: World's First Multilingual and Multimodal AI News Agent, Synced Review, July 21, 2020. [link](#)
3. Disrupted Journalism, by DisruptionHub. July 20, 2017. (mentioning our in-house developed Xiaomingbot) [link](#)
4. Robot gives competitive edge to tech application, by China Daily, September 4, 2016. (similar coverage by 83 reports. about our news writing robot: Xiaomingbot, some examples see below)
5. Prolific Robot Journalist Covers 450 Olympic Stories. by Newsweek. August 26, 2016. (coverage of our in-house developed writing robot Xiaomingbot) [link](#)
6. The Future of Writing? China's AI Reporter Published 450 Articles During Rio Olympics, by Futurism, August 26, 2016. [link](#)
7. Robot Reporter Covered The Olympics For A Chinese News Outlet, by Popular Science, August 25, 2016. (coverage of our in-house developed writing robot Xiaomingbot) [link](#)
8. China Sends AI Reporter to Cover the Rio Olympics – Blows Every Journalist Out of the Water, by Nextshark, August 25, 2016. [link](#)
9. A Chinese news outlet used an incredibly efficient “robot reporter” to cover the Olympics. by Quartz. August 24, 2016. [link](#)
10. China's A.I. Olympics Reporter Could Replace Journalists, by Inverse, August 24, 2016. [link](#)
11. Breaking down China's most popular news app, Toutiao, by AbacUSNews, Oct. 2, 2018. (mentioning Xiaomingbot) [link](#)
12. The Insanely Popular Chinese News App That You've Never Heard Of, by MIT Technology Review, January 26, 2017. (Mentioning Xiaomingbot) [link](#)
13. The Hidden Forces Behind Toutiao: China's Content King, by Y Combinator, October 12, 2017. [link](#)
14. Smart technologies hone poverty alleviation targeting, by Xinhua news, July 23, 2019. [link](#) (many similar coverage by various outlets)
15. Missing persons technology helps locate China's elderly, by ChinaDaily October 10, 2019. [link](#) (many similar coverage by various outlets)
16. Douyin took missing elder person home within three hours. by Sina.com, October 16, 2018. [link](#) (many similar coverage by various outlets)
17. Chinese new media urged to prioritize social effects, by ChinaDaily, November 30, 2019. [link](#)
18. TikTok's owner had \$7 billion in revenue for the first half of the year. Reuters. September 30, 2019. [link](#)