Lei Li

Contact Information

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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

University of California, Santa Barbara   **since Jul. 2021**

Assistant Professor, Computer Science Department

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: VolcTrans Machine Translation system which serves over one billion users in 114 languages; Key technologies for ads creation on OceanEngine, an online advertising system; Query-analysis technologies for Toutiao Search, serving more than hundreds of millions of users daily; Large-scale video infringement detection system with more than 20 millions of videos analyzed daily; Zhuge, an E-Sales Assistant system; and 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. ACL 2021 Best Paper Award (1 in 3350 submissions).
2. 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.
3. 2019 Young Elite Award by China Computer Federation. (6 winners in total)
4. 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.
5. 2017 China Computer Federation Distinguished Speaker.
6. 2012 SIGKDD Doctoral Dissertation Award (runner-up), the Association for Computing Machinery (3 winners and runner-ups in total).
7. National Excellent Patent award in 2021, China, for patent 201811060837.X.
8. Led the development of VolcTrans, a machine translation system, with billions of requests daily, serving over a billion of active users.
9. 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.
10. 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.
11. 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. 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.
2. UCSB Faculty Research Grant: "Efficient AI Methods for De-novo Drug Molecule Design", PI, $13,709, 7/1/2022 - 6/30/2023.
3. UCSB-IEE-Meta Collaborative Research on AI, co-PI, my portion: $75,690, 10/1/2021 - 9/30/2022, continuing.
4. NSF #2219627 Grant for AAAI Doctoral Consortium 2022, PI, $6,703.

Publications

REFEREED JOURNAL PAPERS

[J6] 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 (2022), pp. 57–64.

[J5] 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)* (2021).

[J4] Tao Kong, Fuchun Sun, Huaping Liu, Yuning Jiang, **Lei Li**, Jianbo Shi. "FoveaBox: Beyound 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

[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**. "Rethinking 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, Jiaze 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, Jiaze 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, Jiaze 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.

[C79] Mingxuan Jing, Wenbing Huang, Fuchun Sun, Xiaojian Ma, Tao Kong, Chuang Gan, **Lei Li**. "Adversarial Option-Aware Hierarchical Imitation Learning". In: *Proceedings of the 38th International Conference on Machine Learning (ICML).* July 2021.

[C78] Quanyu Long, Mingxuan Wang, **Lei Li**. "Generative Imagination Elevates Machine Translation". In: *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT).* Online: Association for Computational Linguistics, June 2021, pp. 5738–5748.

[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.

[C76] Mingxuan Wang, Hongxiao Bai, Hai Zhao, **Lei Li**. "Cross-lingual Supervision Improves Unsupervised Neural 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. 89–96.

[C75] Xiaohui Wang, Ying Xiong, Yang Wei, Mingxuan Wang, **Lei Li**. "LightSeq: A High Performance Inference Library for Transformers". 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. 113–120.

[C74] Yukang Chen, Yanwei Li, Tao Kong, Lu Qi, Ruihang Chu, **Lei Li**, Jiaya Jia. "Scale-aware Automatic Augmentation for Object Detection". In: *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR).* June 2021.

[C73] Ya Jing, Tao Kong, Wei Wang, Liang Wang, **Lei Li**, Tieniu Tan. "Locate then Segment: A Strong Pipeline for Referring Image Segmentation". In: *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR).* June 2021.

[C72] Peize Sun, Rufeng Zhang, Yi Jiang, Tao Kong, Chenfeng Xu, Wei Zhan, Masayoshi Tomizuka, **Lei Li**, Zehuan Yuan, Changhu Wang, Ping Luo. "Sparse R-CNN: End-to-End Object Detection with Learnable Proposals". In: *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR).* June 2021.

[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.

[C69] Yijun Wang, Changzhi Sun, Yuanbin Wu, Hao Zhou, **Lei Li**, Junchi Yan. "ENPAR: Enhancing Entity and Entity Pair Representations for Joint Entity Relation Extraction". In: *Proceedings of European Chapter of the Association for Computational Linguistics (EACL)*. Apr. 2021.

[C68] Zhenqiao Song, Jiaze Chen, Hao Zhou, **Lei Li**. "Triangular Bidword Generation for Sponsored Search Auction". In: *Proceedings of the 14th International Conference on Web Search and Data Mining (WSDM)*. Mar. 2021.

[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.

[C65] Xunpeng Huang, Runxin Xu, Hao Zhou, Zhe Wang, Zhengyang Liu, **Lei Li**. "ACMo: Angle-Calibrated Moment Methods for Stochastic Optimization". In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2021.

[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.

[C62] Jieyu Zhang, Xiangchen Song, Ying Zeng, Jiaze Chen, Jiaming Shen, Yuning Mao, **Lei Li**. "Taxonomy Completion via Triplet Matching Network". In: *Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2021.

[C61] Xinlong Wang, Rufeng Zhang, Tao Kong, **Lei Li**, Chunhua Shen. "SOLOv2: Dynamic and Fast Instance Segmentation". In: *the 34th Conference on Neural Information Processing Systems (NeurIPS)*. Dec. 2020.

[C60] Bohan Li, Hao Zhou, Junxian He, Mingxuan Wang, Yiming Yang, **Lei Li**. "On the Sentence Embeddings from Pre-trained Language Models". In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2020.

[C59] Zehui Lin, Xiao Pan, Mingxuan Wang, Xipeng Qiu, Jiangtao Feng, Hao Zhou, **Lei Li**. "Pre-training Multilingual Neural Machine Translation by Leveraging Alignment Information". In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2020.

[C58] Shuang Zeng, Runxin Xu, Baobao Chang, **Lei Li**. "Double Graph Based Reasoning for Document-level Relation Extraction". In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2020.

[C57] Dongyu Ru, Jiangtao Feng, Lin Qiu, Hao Zhou, Mingxuan Wang, Weinan Zhang, Yong Yu, **Lei Li**. "Active Sentence Learning by Adversarial Uncertainty Sampling in Discrete Space". In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Nov. 2020.

[C56] Maosen Zhang, Nan Jiang, **Lei Li**, Yexiang Xue. "Language Generation via Combinatorial Constraint Satisfaction: A Tree Search Enhanced Monte-Carlo Approach". In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP) - Findings*. Nov. 2020.

[C55] Yuxuan Song, Ning Miao, Hao Zhou, Lantao Yu, Mingxuan Wang, **Lei Li**. "Improving Maximum Likelihood Training for Text Generation with Density Ratio Estimation". In: *The 23rd International Conference on Artificial Intelligence and Statistics (AISTATS)*. Aug. 2020.

[C54] Xinlong Wang, Tao Kong, Chunhua Shen, Yuning Jiang, **Lei Li**. "SOLO: Segmenting Objects by Locations". In: *The European Conference on Computer Vision (ECCV)*. Aug. 2020.

[C53] Wenxian Shi, Hao Zhou, Ning Miao, **Lei Li**. "Dispersed Exponential Family Mixture VAEs for Interpretable Text Generation". In: *Proceedings of the 37th International Conference on Machine Learning (ICML)*. July 2020.

[C52] Ning Miao, Yuxuan Song, Hao Zhou, **Lei Li**. "Do you have the right scissors? Tailoring Pre-trained Language Models via Monte-Carlo Methods". In: *the 58th Annual Meeting of the Association for Computational Linguistics (ACL) - short papers*. July 2020.

[C51] Xinyu Hua, **Lei Li**, Lifeng Hua, Lu Wang. "XREF: Entity Linking for Chinese News Comments with Supplementary Article Reference". In: *Automated Knowledge Base Construction (AKBC)*. June 2020.

[C50] Rong Ye, Wenxian Shi, Hao Zhou, Zhongyu Wei, **Lei Li**. "Variational Template Machine for Data-to-Text Generation". In: *International Conference on Learning Representations (ICLR)*. Apr. 2020.

[C49] Zaixiang Zheng, Hao Zhou, Shujian Huang, **Lei Li**, Xinyu Dai, Jiajun Chen. "Mirror Generative Models for Neural Machine Translation". In: *International Conference on Learning Representations (ICLR)*. Apr. 2020. Oral, 1.9% acceptance rate.

[C48] Xunpeng Huang, Xianfeng Liang, Zhengyang Liu, Yue Yu, **Lei Li**. "SPAN: A Stochastic Projected Approximate Newton Method". In: *the 34th AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2020.

[C47] Xinlong Wang, Wei Yin, Tao Kong, Yuning Jiang, **Lei Li**, Chunhua Shen. "Task-Aware Monocular Depth Estimation for 3D Object Detection". In: *the 34th AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2020. Oral.

[C46] Qingyang Wu, **Lei Li**, Hao Zhou, Ying Zeng, Zhou Yu. "Importance-Aware Learning for Neural Headline Editing". In: *the 34th AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2020.

[C45] Jiacheng Yang, Mingxuan Wang, Hao Zhou, Chengqi Zhao, Weinan Zhang, Yong Yu, **Lei Li**. "Towards Making the Most of BERT in Neural Machine Translation". In: *the 34th AAAI Conference on Artificial Intelligence (AAAI)*. Feb. 2020.

[C44] Ning Miao, Hao Zhou, Chengqi Zhao, Wenxian Shi, **Lei Li**. "Kernelized Bayesian Softmax for Text Generation". In: *the 33rd Conference on Neural Information Processing Systems (NeurIPS)*. Dec. 2019.

[C43] Zhichen Zhao, **Lei Li**, Bowen Zhang, Meng Wang, Yuning Jiang, Li Xu, Fengkun Wang, Weiying Ma. "What You Look Matters: Offline Evaluation of Advertising Creatives for Cold Start Problem". In: *the 28th ACM International Conference on Information and Knowledge Management (CIKM)*. Nov. 2019.

[C42] Mingxuan Wang, Jun Xie, Zhixing Tan, Jinsong Su, Deyi Xiong, **Lei Li**. "Towards Linear Time Neural Machine Translation with Capsule Networks". In: *the Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Nov. 2019.

[C41] Qing-Yuan Jiang, Yi He, Gen Li, Jian Lin, **Lei Li**, Wu-Jun Li. "SVD: A Large-Scale Short Video Dataset for Near Duplicate Video Retrieval." In: *International Conference on Computer Vision (ICCV)*. Oct. 2019.

[C40] Xin Wang, Jiawei Wu, Junkun Chen, **Lei Li**, Yuan-Fang Wang, William Yang Wang. "VATEX: A Large-Scale, High-Quality Multilingual Dataset for Video-and-Language Research". In: *International Conference on Computer Vision (ICCV)*. Oct. 2019. Oral.

[C39] Yao Fu, Hao Zhou, Jiaze Chen, **Lei Li**. "Rethinking Text Attribute Transfer: A Lexical Analysis". In: *the 12th International Conference on Natural Language Generation (INLG)*. Oct. 2019.

[C38] Yunfei Lu, Linyun Yu, Peng Cui, Chengxi Zang, Renzhe Xu, Yihao Liu, **Lei Li**, Wenwu Zhu. "Uncovering the Co-driven Mechanism of Social and Content Links in User Churn Phenomena". In: *the 25th SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*. New York, NY, USA: ACM, Aug. 2019.

[C37] Rongxiang Weng, Hao Zhou, Shujian Huang, Yifan Xia, **Lei Li**, Jiajun Chen. "Correct-and-Memorize: Learning to Translate from Interactive Revisions". In: *the 28th International Joint Conference on Artificial Intelligence (IJCAI)*. Aug. 2019. Oral.

[C36] Yu Bao, Hao Zhou, Shujian Huang, **Lei Li**, Lili Mou, Olga Vechtomova, Xinyu Dai, Jiajun Chen. "Generating Sentences from Disentangled Syntactic and Semantic Spaces". In: *the 57th Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2019.

[C35] Lin Qiu, Yunxuan Xiao, Yanru Qu, Hao Zhou, **Lei Li**, Weinan Zhang, Yong Yu. "Dynamically Fused Graph Network for Multi-hop Reasoning". In: *the 57th Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2019.

[C34] Huangzhao Zhang, Ning Miao, Hao Zhou, **Lei Li**. "Generating Fluent Adversarial Examples for Natural Languages". In: *the 57th Annual Meeting of the Association for Computational Linguistics (ACL) - short papers*. July 2019.

[C33] Hao Wu, Jiayuan Mao, Yufeng Zhang, Weiwei Sun, Yuning Jiang, **Lei Li**, Weiying Ma. "Unified Visual-Semantic Embeddings: Bridging Vision and Language with Structured Meaning Representations". In: *The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. June 2019. Oral.

[C32] Ning Miao, Hao Zhou, Lili Mou, Rui Yan, **Lei Li**. "CGMH: Constrained Sentence Generation by Metropolis-Hastings Sampling". In: *the 33rd AAAI Conference on Artificial Intelligence (AAAI)*. Jan. 2019. Oral.

[C31] Wei Cao, Dong Wang, Jian Li, Hao Zhou, Yitan Li, **Lei Li**. "BRITS: Bidirectional Recurrent Imputation for Time Series". In: *the 32nd Conference on Neural Information Processing Systems (NeurIPS)*. Dec. 2018.

[C30] Haoyue Shi, Hao Zhou, Jiaze Chen, **Lei Li**. "On Tree-Based Neural Sentence Modeling". In: *Conference on Empirical Methods in Natural Language Processing (EMNLP)*. Oct. 2018.

[C29] **Lei Li**, Xiaojun Wan. "Overview of the NLPCC 2018 shared task: Single document summarization". In: *Proc. of NLPCC*. Oct. 2018.

[C28] Jiawei Wu, **Lei Li**, William Yang Wang. "Reinforced Co-Training". In: *Proceedings of the 2018 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT)*. New Orleans, Louisiana: Association for Computational Linguistics, June 2018, pp. 1252–1262.

[C27] Lifeng Hua, Xiaojun Wan, **Lei Li**. "Overview of the NLPCC 2017 shared task: Single document summarization". In: *Proc. of NLPCC*. Oct. 2017.

[C26] Yusuf Erol, Yi Wu, **Lei Li**, Stuart Russell. "A Nearly-Black-Box Online Algorithm for Joint Parameter and State Estimation in Temporal Models". In: *the 31st AAAI Conference on Artificial Intelligence (AAAI)*. July 2017.

[C25] Yi Wu, **Lei Li**, Stuart Russell, Rastislav Bodik. "Swift: Compiled Inference for Probabilistic Programming Languages". In: *25th International Joint Conference on Artificial Intelligence (IJCAI)*. July 2016.

[C24] Zihang Dai, **Lei Li**, Wei Xu. "CFO: Conditional Focused Neural Question Answering with Large-scale Knowledge Bases". In: *the 54th Annual Meeting of the Association for Computational Linguistics (ACL)*. July 2016.

[C23] Da-Cheng Juan, **Lei Li**, Huan-Kai Peng, Diana Marculescu, Christos Faloutsos. "Beyond Poisson: Modeling Inter-Arrival Times of Requests in a Datacenter". In: *The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*. 2014.

[C22] **Lei Li**, Bharath Ramsundar, Stuart Russell. "Dynamic Scaled Sampling for Deterministic Constraints". In: *16th International Conference on Artificial Intelligence and Statistics (AISTATS)*. 2013.

[C21] Sharad Vikram, **Lei Li**, Stuart Russell. "Handwriting and Gestures in the Air, Recognizing on the Fly". In: *ACM Conference on Human Factors in Computing Systems (CHI) Extended Abstracts*. 2013.

[C20] Siyuan Liu, **Lei Li**, Ramayya Krishnan. "Hibernating Process: Modelling Mobile Calls at Multiple Scales". In: *IEEE International Conference on Data Mining (ICDM)*. 2013.

[C19] Yusuf Erol, **Lei Li**, Bharath Ramsundar, Stuart Russell. "The Extended Parameter Filter". In: *Proceedings of the 30th International Conference on Machine learning (ICML)*. 2013.

[C18]   Bin Fu, Jialiu Lin, **Lei Li**, Christos Faloutsos, Jason Hong, Norman Sadeh. "Why People Hate Your App - Making Sense of User Feedback in a Mobile App Store". In: *the 19th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. New York, NY, USA: ACM, 2013.

[C17]   Mark Rogers, **Lei Li**, Stuart Russell. "Multilinear Dynamical Systems for Tensor Time Series". In: *the 27th Conference on Neural Information Processing Systems(NeurIPS)*. 2013.

[C16]   Yasuko Matsubara, **Lei Li**, Evangelos E. Papalexakis, David Lo, Yasushi Sakurai, Christos Faloutsos. "F-Trail: Finding Patterns in Taxi Trajectories". In: *The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)*. 2013, pp. 86–98.

[C15]   Keith Henderson, Brian Gallagher, Tina Eliassi-Rad, Hanghang Tong, Sugato Basu, Leman Akoglu, Danai Koutra, Christos Faloutsos, **Lei Li**. "RolX: Structural Role Extraction and Mining in Large Graphs". In: *Proceeding of the 18th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. New York, NY, USA: ACM, 2012.

[C14]   Yasuko Matsubara, Yasushi Sakurai, B. Aditya Prakash, **Lei Li**, Christos Faloutsos. "Rise and Fall Patterns of Information Diffusion: Model and Implications". In: *Proceeding of the 18th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. New York, NY, USA: ACM, 2012.

[C13]   Keith Henderson, Brian Gallagher, **Lei Li**, Leman Akoglu, Tina Eliassi-Rad, Hanghang Tong, Christos Faloutsos. "It's Who You Know: Graph Mining Using Recursive Structural Features". In: *Proceeding of the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. San Diego, California: ACM, 2011.

[C12]   **Lei Li**, Chieh-Jan Mike Liang, Jie Liu, Suman Nath, Andreas Terzis, Christos Faloutsos. "ThermoCast: A Cyber-Physical Forecasting Model for Data Centers". In: *Proceeding of the 17th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD)*. San Diego, California: ACM, 2011.

[C11]   **Lei Li**, B. Aditya Prakash. "Time Series Clustering: Complex is Simpler!" In: *Proceedings of the 28th International Conference on Machine Learning (ICML)*. Bellevue, Washington, 2011.

[C10]   Yasushi Sakurai, **Lei Li**, Yasuko Matsubara, Christos Faloutsos. "WindMine: Fast and Effective Mining of Web-click Sequences". In: *SIAM International Conference on Data Mining (SDM)*. 2011.

[C9]   Keith Henderson, Tina Eliassi-Rad, Christos Faloutsos, Leman Akoglu, **Lei Li**, Koji Maruhashi, B. Aditya Prakash, Hanghang Tong. "Metric forensics: a multi-level approach for mining volatile graphs". In: *Proceedings of the 16th ACM SIGKDD international conference on Knowledge discovery and data mining (KDD)*. KDD '10. Washington, DC, USA: ACM, 2010, pp. 163–172.

[C8]   **Lei Li**, James McCann, Nancy Pollard, Christos Faloutsos. "BoLeRO: a principled technique for including bone length constraints in motion capture occlusion filling". In: *Proceedings of the 2010 ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA)*. SCA '10. Madrid, Spain: Eurographics Association, 2010, pp. 179–188.

[C7]   **Lei Li**, B. Aditya Prakash, Christos Faloutsos. "Parsimonious linear fingerprinting for time series". In: *the Proceedings of the Very Large Data Bases Endowment (VLDB)*. Vol. 3. VLDB Endowment, Sept. 2010, pp. 385–396.

[C6]   **Lei Li**, James McCann, Nancy Pollard, Christos Faloutsos. "DynaMMo: Mining and Summarization of Coevolving Sequences with Missing Values". In: *Proceeding of the 15th ACM SIGKDD international conference on Knowledge discovery and data mining (KDD)*. Paris, France: ACM, 2009.

[C5]   **Lei Li**, Wenjie Fu, Fan Guo, Todd C. Mowry, Christos Faloutsos. "Cut-and-Stitch: efficient parallel learning of linear dynamical systems on smps". In: *Proceeding of the 14th ACM SIGKDD international conference on Knowledge discovery and data mining (KDD)*. Las Vegas, Nevada, USA: ACM, 2008, pp. 471–479.

[C4]   Yasushi Sakurai, Rosalynn Chong, **Lei Li**, Christos Faloutsos. "Efficient Distribution Mining and Classification". In: *SIAM International Conference on Data Mining (SDM)*. 2008, pp. 632–643.

[C3]   **Lei Li**, James McCann, Christos Faloutsos, Nancy Pollard. "Laziness is a virtue: Motion stitching using effort minimization". In: *The 29th Annual Conference of the European Association for Computer Graphics (EG), Short Paper Proceedings*. 2008.

[C2]   Fan Guo, **Lei Li**, Christos Faloutsos, Eric P. Xing. "C-DEM: a Multi-modal Query System for Drosophila Embryo Databases". In: *the Proceedings of the Very Large Data Bases Endowment (VLDB)*. Vol. 1. VLDB Endowment, Aug. 2008, pp. 1508–1511.

[C1]   **Lei Li**, Qiaoling Liu, Yunfeng Tao, Lei Zhang, Jian Zhou, Yong Yu. "Providing an Uncertainty Reasoning Service for Semantic Web Application". In: *Asia-Pacific Web Conference*. 2006, pp. 628–639.

REFEREED WORKSHOP PAPERS

[W12]   Siqi Ouyang, Rong Ye, **Lei Li**. "On the Impact of Noises in Crowd-Sourced Data for Speech Translation". In: *Proceedings of the 19th International Conference on Spoken Language Translation (IWSLT 2022)*. Dublin, Ireland (in-person and online): Association for Computational Linguistics, May 2022, pp. 92–97.

[W11]   Lihua Qian, Yi Zhou, Zaixiang Zheng, Yaoming Zhu, Zehui Lin, Jiangtao Feng, Shanbo Cheng, **Lei Li**, Mingxuan Wang, Hao Zhou. "The Volctrans GLAT System: Non-autoregressive Translation Meets WMT21". In: *Sixth Conference on Machine Translation (WMT21)*. Nov. 2021.

[W10]   Chengqi Zhao, Zhicheng Liu, Jian Tong, Tao Wang, Mingxuan Wang, Rong Ye, Qianqian Dong, Jun Cao, **Lei Li**. "The Volctrans Neural Speech Translation System for IWSLT 2021". In: *The International Conference on Spoken Language Translation (IWSLT)*. Aug. 2021.

[W9]   Liwei Wu, Xiao Pan, Zehui Lin, Yaoming Zhu, Mingxuan Wang, **Lei Li**. "The Volctrans Machine Translation System for WMT20". In: *Proceedings of the Fifth Conference on Machine Translation (Volume 2: Shared Task Papers)*. Nov. 2020.

[W8]   Runxin Xu, Zhuo Zhi, Jun Cao, Mingxuan Wang, **Lei Li**. "Volctrans Parallel Corpus Filtering System for WMT 2020". In: *Proceedings of the Fifth Conference on Machine Translation (Volume 2: Shared Task Papers)*. Nov. 2020.

[W7]   Gen Li, Shikun Xu, Xiang Liu, **Lei Li**, Changhu Wang. "Jersey Number Recognition with Semi-Supervised Spatial Transformer Network". In: *IEEE Conference on Computer Vision and Pattern Recognition workshops, Computer Vision in Sports*. June 2018, pp. 1864 –1871.

[W6]   Yi Wu, **Lei Li**, Stuart Russell. "BFiT: From Possible-World Semantics to Random-Evaluation Semantics in Open Universe". In: *Neural Information Processing Systems, Probabilistic Programming workshop*. 2014.

[W5]   Simon Shaolei Du, Yilin Liu, Boyi Chen, **Lei Li**. "Maxios: Large Scale Nonnegative Matrix Factorization for Collaborative Filtering". In: *Neural Information Processing Systems, workshop on Distributed Machine Learning and Matrix Computations*. 2014.

[W4]   Siyuan Liu, **Lei Li**, Christos Faloutsos, Lionel Ni. "Mobile Phone Graph Evolution: Findings, Model and Interpretation". In: *IEEE International Conference on Data Mining, workshop on Data Mining Technologies for Computational Collective Intelligence*. 2011.

[W3]   **Lei Li**. "Fast Algorithms for Time Series Mining". In: *26th IEEE International Conference on Data Engineering, PHD Workshop*. 2010, pp. 341–344.

[W2]   Fan Guo, **Lei Li**, Christos Faloutsos. "Tailoring click models to user goals". In: *Proceedings of the 2009 workshop on Web Search Click Data*. WSCD '09. Barcelona, Spain: ACM, 2009, pp. 88–92.

[W1]   Wanhong Xu, Xi Zhou, **Lei Li**. "Inferring privacy information via social relations". In: *IEEE 24th International Conference on Data Engineering workshops*. 2008, pp. 525–530.

REFEREED SYSTEM DEMONSTRATION PAPERS

[D4]   Chengqi Zhao, Mingxuan Wang, Qianqian Dong, Rong Ye, **Lei Li**. "NeurST: Neural Speech Translation Toolkit". In: *the 59th Annual Meeting of the Association for Computational Linguistics (ACL): System Demonstrations*. Aug. 2021.

[D3] Dongyu Ru, Zhenghui Wang, Lin Qiu, Hao Zhou, **Lei Li**, Weinan Zhang, Yong Yu. "QuAChIE: Question Answering based Chinese Information Extraction System". In: *the 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR) - System Demonstrations.* July 2020.

[D2] Runxin Xu, Jun Cao, Mingxuan Wang, Jiaze Chen, Hao Zhou, Ying Zeng, Yuping Wang, Li Chen, Xiang Yin, Xijin Zhang, Songcheng Jiang, Yuxuan Wang, **Lei Li**. "Xiaomingbot: A Multilingual Robot News Reporter". In: *the 58th Annual Meeting of the Association for Computational Linguistics (ACL): System Demonstrations.* July 2020.

[D1] Zhaoyue Sun, Jiaze Chen, Hao Zhou, Deyu Zhou, **Lei Li**, Mingmin Jiang. "GraspSnooker: Automatic Chinese Commentary Generation for Snooker Videos". In: *the 28th International Joint Conference on Artificial Intelligence (IJCAI).* Aug. 2019, pp. 6569–6571. Demo.

TECHNICAL REPORTS

[T2] **Lei Li**, Stuart Russell. *The BLOG Language Reference.* Tech. rep. UCB/EECS-2013-51. EECS Department, University of California, Berkeley, May 2013.

[T1] **Lei Li**. "Fast algorithms for mining co-evolving time series". PhD thesis. Carnegie Mellon University, 2011.

Patents

[P31] Yi He, Cheng Yang, Gen Li, Yitan Li, **Lei Li**. "Method and Device for Determining Duplicate Video". Pat. 11,265,598 B2. Mar. 2022.

[P30] Gen Li, **Lei Li**, Yi He. "Audio Retrieval and Identification Method and Device". Pat. 11,182,426 B2. Nov. 2021.

[P29] Yi He, **Lei Li**, Cheng Yang, Gen Li, Yitan Li. "Video Feature Extraction Method and Device". Pat. 11,055,536 B2. July 2021.

[P28] Gen Li, Shikun Xu, Yandong Zhu, **Lei Li**, Changhu Wang. "Target Object Image Detection Method and Device". Pat. 201811010095.X. May 2021.

[P27] Yangyu Chen, Yi He, **Lei Li**. "Method and Device for determining geometric transformation relation for images". Pat. 10,984,542 B2. Apr. 2021.

[P26] Yi He, Gen Li, **Lei Li**. "Image processing method and device". Pat. 201910498629.6. Apr. 2021.

[P25] Xunpeng Huang, Zhengyang Liu, **Lei Li**. "Target Object Classification method and device". Pat. 202010057296.6. Apr. 2021.

[P24] **Lei Li**, Jiaze Chen, Jiamin Chen, Weiying Ma, Lifeng Hua. "Method and Device for generating information". Pat. 201811455645.9. Apr. 2021.

[P23] Gen Li, **Lei Li**, Yi He. "Audio Fingerprint Extraction Method and Device". Pat. 10,950,255 B2. Mar. 2021.

[P22] Heng She, Yang Wang, Yinuo Guo, Huiru Zhang, Yitan Li, **Lei Li**, Hang Li. "Method and Device for Push-Notifying Information". Pat. 201811562666.0. Mar. 2021.

[P21] Jiaze Chen, **Lei Li**, Ying Zeng, Weiying Ma. "Method and Device for generation product description information". Pat. 201811457980.2. Jan. 2021.

[P20] Jiangdong Deng, **Lei Li**, Weiying Ma. "Method and device for stock selection". Pat. 201810910344.4. Jan. 2021.

[P19] Yi He, Cheng Yang, Gen Li, Yitan Li, **Lei Li**. "Duplicate video detection method and device". Pat. 201810273706.3. Jan. 2021.

[P18] Jiangdong Deng, **Lei Li**, Weiying Ma. "Sentiment Prediction Method and Device". Pat. 201810909879.X. Sept. 2020.

[P17] Yi He, **Lei Li**, Cheng Yang, Gen Li, Yitan Li. "A Method and Device for Video Feature Extraction". Pat. 201810271774.6. July 2020.

[P16] Hao Zhou, **Lei Li**. "Machine Translation Method and Device". Pat. 201910105606.4. July 2020.

[P15] Yi He, **Lei Li**, Cheng Yang, Gen Li, Yitan Li. "Video Feature Extraction Method and Device". Pat. 201810271773.1. May 2020.

[P14] Hao Zhou, **Lei Li**, Ning Miao. "Method and Device for Generating Text". Pat. 201910105002.X. May 2020.

[P13] Gen Li, Shikun Xu, Yandong Zhu, **Lei Li**, Changhu Wang. "Target Object Image Detection Method and Device". Pat. 201811010092.6. Apr. 2020.

[P12] Linyun Yu, **Lei Li**, Haibin Yin, Wenjia Zhu, Dong Jiang. "Method and Apparatus for generating image". Pat. 201810668219.7. Apr. 2020.

[P11] Jiangdong Deng, Qu Peng, **Lei Li**, Weiying Ma. "A method for outputing information". Pat. 201811074033.5. Mar. 2020.

[P10] **Lei Li**, Zihang Dai, Wei Xu. "Systems and methods for human inspired simple question answering (HISQA)". Pat. US10606846B2. Mar. 2020.

[P9] Hao Zhou, **Lei Li**, Jiaze Chen, Haoyue Shi. "Method and Device for generating information". Pat. 201910105241.5. Mar. 2020.

[P8] Hao Zhou, **Lei Li**. "Method and Device for generating information". Pat. 201910105235.X. Mar. 2020.

[P7] Yi He, **Lei Li**, Xianzi Zong, Hao Tang, Guangguo Zheng. "Method and Device for searching information". Pat. 201811060981.3. Jan. 2020.

[P6] Linyun Yu, **Lei Li**, Haibin Yin, Dong Jiang. "Method and apparatus for generating image". Pat. 201810669838.8. Jan. 2020.

[P5] Yangyu Chen, Yi He, **Lei Li**. "A method and apparatus for determining a geometric transformation relationship between images". Pat. 201811060837.X. Nov. 2019.

[P4] Dong Jiang, Yanbin Zhao, Shuang Hou, Xuhong Xia, **Lei Li**, Dingkun Hong. "Construction method and device of voice classification model." Pat. 201710388497.2. Mar. 2019.

[P3] Zheng Chen, **Lei Li**, Chenxi Lin, Qiaoling Liu, Jian Wang, Benyu Zhang. "Adaptive grouping in a file network". Pat. US 7,634,471. Dec. 2009.

[P2] Zheng Chen, **Lei Li**, Chenxi Lin, Qiaoling Liu, Jian Wang, Benyu Zhang. "System and method for exploring a semantic file network". Pat. US 7,624,130. Nov. 2009.

[P1] Zheng Chen, **Lei Li**, Chenxi Lin, Qiaoling Liu, Jian Wang, Benyu Zhang. "Extracting Semantic Attributes". Pat. US 7,502,785. Mar. 2009.

Talks

1. CCF-ADL Tutorial: Pre-training for Neural Machine Translation. August 18, 2022 (online).

2. Invited Talk: Multi-objective Drug Molecule Generation, the AI for Health Forum of BAAI Conference. June 2, 2022.

3. Keynote: Challenges and Progress of Massive Multilingual Machine Translation. Pre-ACL 2022 Online Meetup. May 20, 2022.

4. Invited Talk: Challenges and Progress of Multilingual Machine Translation. Meta (Facebook) AI. April 15, 2022.

5. Invited Talk: Training Privacy-preserving Language Models. at International Conference on the next-generation AI risk governance and policies. February 18, 2022.

6. Invited Talk: Efficient Machine Translation. at Apple Inc. December 15, 2021.

7. Keynote: Efficient Machine Translation. at the 17th China Conference on Machine Translation. Xining, Qinghai, China. October 10, 2021.

8. ACL 2021 Tutorial: Pre-training for Neural Machine Translation (online), August 1, 2021.

9. Invited talk: Speech Translation – Streamlining Research and Product Innovation. the NLP forum of 2021 Global AI Technology Conference, Zhejiang Hangzhou, June 6, 2021.

10. Guest Lecture: Data mining for Personalized Recommendation Systems, undergraduate Data Mining class, Tsinghua University. June 4, 2021.

11. Talk: Interpretable, Controllable, and Scalable Natural Language Generation, the Natural Language Generation workshop (online), May 28, 2021.

12. Guest Lecture: Deep Generative Models for Text and Beyond. Deep Learning course. Department of Computer Science, Tsinghua University. April 28, 2021.

13. Guest Lecture: Deep Generative Models for Text and Beyond. Advanced Machine Learning course. Department of Computer Science, Tsinghua University. April 14, 2021.

14. Talk: Recent Advances in Machine Writing and Translation – Algorithms and Challenges, GTC - China, December 19, 2020.

15. Invited Talk: Controllable and Interpretable Machine Learning for Natural Language Generation. Department of Computer Science. Nanjing University. December 11, 2020.

16. Guest Lecture: Deep Latent Models for Natural Language Generation. Graduate course in Machine Learning, Department of Computer Science, Tsinghua University. December 8, 2020.

17. Invited Talk: Is it a fact? – Logic Enhanced Neural Reasoning. Cognitive Intelligence workshop, Shanghai, December 8, 2020.

18. Keynote Talk: Scalable, Controllable, and Interpretable Machine Learning for Natural Language Generation. NeurIPS 2020 Meetups in Beijing. December 6, 2020.

19. Guest Lecture: Scalable, Controllable and Interpretable Machine Learning for Natural Language Generation. undergraduate class in CS, IIIS, Tsinghua University. October 8, 2020.

20. Invited Talk: Constrained Text Generation – Monte Carlo Meets Neural Nets. Tsinghua University, Institute of Inter-disciplinary Information Sciences. October 8, 2020.

21. Guest Lecture: Learning Deep Latent Models for Text Sequences, graduate class in Machine Learning, Tsinghua University, April 29, 2020.

22. Talk at ICLR 2020: Learning Deep Latent Models for Text Sequences. April 29, 2020.

23. Guest Lecture, Deep Generative Models for Text Generation, graduate class in Machine Learning, Tsinghua University, November 26, 2019.

24. Invited Talk: Deep Text Generation: Models and Applications, School of Data Science and Engineering, East China Normal University, Shanghai, China, November 8, 2019.

25. Industrial Invited Talk at CIKM 2019: Multi-lingual cross-modal machine translation at global scale, Beijing, China, November 7, 2019.

26. EMNLP 2019 Tutorial: Discreteness in Natural Language Processing, Hong Kong, November 4, 2019. (3 hr, with Lili Mou and Hao Zhou)

27. CCF-ADL107/NLPCC 2019 Tutorial: Deep Generative Models for Text Generation, Dunhuang, China, Oct 9, 2019. (3 hr, with Hao Zhou).

28. Invited Talk at IJCAI 2019 Industrial Days: Deep Text Generation: Models and Applications, Macau, China, August 2019.

29. Invited Talk: Machine Writing and Constrained Text Generation, CCF-AI workshop at Beijing Jiao Tong University, June 2019.

30. Guest Lecture, Deep Natural Language Generation, graduate class in Machine Learning, Tsinghua University, May 15, 2019.

31. Guest Lecture, Deep Natural Language Generation, graduate class in NLP, Peking University, May 8, 2019.

32. Guest Lecture, Personalized Recommendation Systems in Practice, undergrad Data Mining class, Tsinghua University. April 26, 2019.

33. Invited Talk: Machine Writing and Constrained Sequence Generation, Arizona State University, Tempe, AZ, April 2019.

34. Invited Talk, Constrained Sentence Generation, School of Data Science, Fudan University, Shanghai, March 2019.

35. Invited Talk: Recent Progress in Natural Language Representation Learning and Generation, InfoQ AICon, Beijing, December 21, 2018.

36. Invited Talk: Learning to generate better news, translation, and advertisement. CSDN AI NEXTCon, Beijing, November 13, 2018.

37. Invited Talk: AI for Content Creation and Interaction, Department of Computer Science, University of Illinois Urbana Champaign, November 2018.

38. Guest Lecture, Deep Learning for Language Understanding and Generation, graduate Machine Learning class, Tsinghua University. November 13, 2018.

39. Invited Talk: AI for Content Creation and Interaction, Viterbi School of Engineering, University of Southern California, October 2018.

40. Invited Talk: Incubating Innovative IT Talents - an academic-industry fused perspective. Computer Education Conference, CCF, Hefei, China, July 2018.

41. Guest Lecture, Deep Learning for Language Understanding and Generation, graduate Machine Learning class, Tsinghua University. April 25, 2018.

42. Invited Talk: AI for Content Creation and Discovery, Computer Science Department, University of California at Davis, California, April 2018.

43. Invited Talk: Machine Writing and Language Generation, Computer Science Department, Fudan University, March 2018.

44. Invited Talk: AI for Content Creation and Interaction, ShanghaiTech University, March 2018

45. Invited Talk: AI for Content Creation and Interaction, Southeast University, March 2018

46. Invited Talk: AI for Content Creation and Interaction, Nanjing University, March 2018

47. Invited Talk: AI for Content Creation and Interaction, Nanjing Normal University, March 2018

48. Invited Talk: AI-assisted Content Creation, CAAI MIFS (Machine Intelligence Frontier Symposium), Beijing, October 2017.

49. Invited Talk: AI-Assisted Content Creation and Commenting, Institute of Computing at China Academy of Science, Beijing, September 2017.

50. Invited Talk: AI-powered Information Creation, Distribution, and Interaction, AI Computing Conference, Beijing, September 2017.

51. Invited Talk: AI Research at Toutiao, Data Science in China, KDD, Halifax, August 2017.

52. Guest Lecture, Deep Learning for Question Answering, graduate Machine Learning class, Tsinghua University. March 13, 2017.

53. CCF-ADL/NLPCC 2016 Tutorial: Deep Learning for Answering Questions, Kunming, China, December 2016.

54. Invited Talk: Learning to Understand and Generate Language, AIWorld Conference, Beijing, October 2016.

55. Invited Talk: Status and Challenges towards general AI. China Conference on Artificial Intelligence. Beijing, August 26-27, 2016.

56. Invited Talk: AI for Content Creation and Sharing, CCF-GAIR (Global Conference on AI and Robotics), Shenzhen, August 2016.

57. Invited Talk: Learning for Dialog and Question Answering, Shanghai Jiao Tong University, Shanghai, June 2016.

58. Invited Talk: Large-scale Learning for Language Understanding, University of Science and Technology in China, Hefei, May 2016.

59. Invited Talk: Learning for Language and Visual Understanding, CAAI-GAITC (Global AI Technology Conference), Beijing, April 2016.

60. Invited Keynote: Deep Learning – Towards More Intelligent Machines, China Computer Federation Young Computer Scientists and Engineers Forum, April 2015.

61. BLOG language and compiled inference. Computer Science department, Stanford University, and separately at Tsinghua University 2015.

62. BLOG language and efficient inference. Berkeley Programming Language Retreat, Santa Cruz, 2014

63. Scalable Probabilistic Inference for Complex Dynamical Models. Invited talk at Ohio State University, New York University, Emory University, Google (Mountain View), 2014.

64. Invited Fish Bowl Seminar: Fast Algorithms for Mining Co-evolving Time Series. , Texas A&M University, 2013.

65. DBLOG: an Open Universe Probabilistic Programming Language for Relational Modeling, The Second EITA Young Investigator Conference, Palo Alto, CA, July 2012.

66. Forecasting with Cyber-physical Interactions in Data Centers. CMU Parallel Data Lab. September 2011.

67. Proactive Detection of Insider Threats with Graph Analysis and Learning (CMU representative), DARPA ADMAS program kickoff conference, Arlington, VA. June 2011.

68. Fast Algorithms for Mining Co-evolving Time Series. Case Western Reserve University, PARC, Yahoo!, SIAT 2011.

69. KDD 2010 Tutorial: Indexing and Mining Time Sequences. Washington DC, KDD 2010. (with Christos Faloutsos)

70. Parsimonious Linear Fingerprinting for Time Series. CMU machine learning lunch, 2010.

71. PLiF: Parsimonious Linear Fingerprinting for Time Series. Zhejiang University, China. September 2010.

72. Fast Algorithms for Mining Co-evolving Time Series. SMU, NUS, HKUST, SJTU, December 2009.

73. Mining with Missing Values in Coevolving Time Series. MSR Redmond, May 2009.

74. Efficient Parallel Learning of Linear Dynamical Systems on SMPs. CMU machine learning lunch, 2008.

Teaching Experience

1. UCSB CS291K: Machine Learning (graduate), Fall 2022.
2. UCSB CS165B: Machine Learning (focus on Deep Learning), undergraduate, Winter 2022.
3. UCSB CS291K: Deep Learning for Machine Translation, graduate, Fall 2021.
4. Lecturer in Probabilistic Programming for Advanced Machine Learning Summer School, Portland, OR, USA, 2014. (total 12hrs lecture for two weeks)
5. 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 PHD STUDENTS:

1. Siqi Ouyang (PhD student at UCSB, 2021 -)
2. Wenda Xu (PhD student at UCSB, co-advised w/ William Wang, 2021 -)
3. Xuandong Zhao (PhD student at UCSB, co-advised w/ Yu-Xiang Wang, 2021 -)
4. Kexun Zhang (PhD student at UCSB, co-advised w/ William Wang, 2022 -)
5. Yujian Liu (PhD student at UCSB, co-advised w/ Shiyu Chang, 2022 -)
6. Zhenqiao Song (PhD student at UCSB, 2022 -)
7. Danqing Wang (PhD student at UCSB, 2022 -)

UNDERGRADUATE STUDENTS AT UCSB:

1. Saisidharth Majeti (2022)
2. Jamie Wang (2022)
3. Ahmed Elkordy (2022)

Other Mentees:

1. Isaac Sloan (UC Leeds Scholar, June 2022 -)
2. Qingxiu Dong (Jan 2022 -)
3. Jiangjie Chen (intern, April 2020 - now)
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 Bytednace, 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. Chengqi Zhao (intern at Bytedance June 2017 - September 2017, currently SDE at Bytedance, MLNLC group)

40. Gen Li (intern at Bytedance April 2016 - December 2016, currently SDE at Bytedance)

41. Fei Jiang (intern at Baidu, master from Tsinghua, April 2015 - Oct 2015, now at JP Morgan Chase)

42. Zefu Lu (Intern at Baidu, UIUC undergrad, May 2015 - Aug 2015)

43. Zihang Dai (Intern at Baidu, CMU, June 2015 - Aug 2015, now Research Scientist at Google)

44. Hieu Pham (intern at Baidu, Stanford master, June 2015 - Sep 2015, now Research Scientist at Google)

45. Di Zhou (intern at Baidu, from U. Texas, May 2015 - Aug 2015)

46. Da Tang (intern at UC Berkeley, July 2014 - Nov 2014, currently Research Scientist at ByteDance.)

47. Lea Jia (intern at UC Berkeley, Feb 2014 - May 2014, Google)

48. Daniel Liu (intern at UC Berkeley, Feb 2014 - Oct 2014)

49. Tejas Srinivasan (intern at UC Berkeley, Oct 2013 - May 2014)

50. Boyi Chen (intern at UC Berkeley, Sep 2013 - Oct 2014, currently software engineer at LinkedIn)

51. Christopher Xie (intern at UC Berkeley, Aug 2013 - May 2014 currently at Meta Reality Lab)

52. Yi Wu (intern at UC Berkeley, Aug 2013 -2014 (joint w/ Stuart Russell), summer intern 2016 at Bytedance, currently faculty at Tsinghua)

53. Simon Du (intern at UC Berkeley, Jul 2013 - Jan 2015, currently faculty at U. Washington)

54. Zhiting Hu (intern at CMU, Jul 2013 - Aug 2013, currently faculty at UCSD)

55. Hao Fu (intern at CMU, Feb 2013 - May 2013)

56. Yiyao Jiang (intern at CMU, Feb 2013 - May 2013)

57. Bharath Ramsundar (intern at UC Berkeley, Jun 2012 - Dec 2013, later Ph.D. student at Stanford)

58. Gerald Fong (intern at UC Berkeley, Sep 2012 - May 2013, currently at Instagram)

59. Sharad Vikram (intern at UC Berkeley, Aug 2012 - May 2013, currently at Google)

60. Aaron Wong (intern at UC Berkeley, Jul 2012 - June 2013, current software engineer at Google)

61. Cheng Lai Victor Huang (intern at UC Berkeley, Sep 2012 - Jan 2013, Amazon)

62. Huanhuan Wang (intern at CMU, joint w/ Siyuan Liu, sp 2012, currently at Google)

63. Shenghao Huang (intern at CMU, joint w/ Siyuan Liu, sp 2012, currently at LinkedIn)

64. Mark Rogers (intern at UC Berkeley, Jan 2012 - Dec 2013, joint w/ Stuart Russell)

65. Akihiro Matsukawa (intern at UC Berkeley, Oct 2011 - Jan 2012, joint w/ Stuart Russell, currently at D.E. Shaw)

Exam/Thesis Committee

Major Area Exam Committee:

1. Yingrui Yang (UCSB), 2022
2. Tsu-Jui Fu (UCSB), 2022
3. Xinlu Zhang (UCSB), 2022
4. Shiyang Li (UCSB), 2022
5. Yuqing Zhu (UCSB), 2022

Professional Service

Associate Editor:

1. 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. AACL Area Chair 2020.
3. CIKM Industrial Track SPC 2019.
4. CCAI (China Conference on Artificial Intelligence): Co-Chair for Young Scientist Forum 2017, Chair for Forum on Innovative Applications of AI 2019,
5. CAAI-IEEE MIFS (Machine Intelligence Frontier Symposium) Co-Chair, 2016.
6. CAAI Byte Tech AI Symposium, PC Co-Chair, Beijing, January 2019.
7. EMNLP AC 2019, 2020, 2021, 2022.
8. ICLR Area Chair 2023.
9. IJCAI SPC 2017.
10. KDD SPC 2022.
11. KDD Cup Co-Chair 2017, Hands-on Tutorial Co-Chair 2018, Sponsorship Co-Chair 2019, 2020.
12. NeurIPS AC 2021, 2022.
13. NLPCC 2022 Area Chair on Machine Translation.
14. SDM SPC 2022.
15. WSDM Cup Co-Chair 2022.
16. 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
17. 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, TACL 2021, 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.

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, July21, 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