

CONTACT INFORMATION	Department of Computer Science North Carolina State University <i>E-mail:</i> dxu27@ncsu.edu <i>Mobile:</i> 814-699-0860	<i>Web:</i> https://personal.psu.edu/dux19/ <i>Google Scholar:</i> Link <i>Twitter:</i> https://twitter.com/DongkuanXu <i>Updated:</i> October 14th, 2022
RESEARCH INTERESTS	<p>I'm interested in resource-efficient deep learning for AI at scale, investigating how to improve the efficiency of deep learning systems to achieve Pareto optimality between computing resources and model performance. I'm leading the NCSU Efficient & Intelligent Computing Lab. My long-term research goal is to free AI from the parameter-data-computation hungry beast and to democratize AI to serve a broader area and population.</p> <ul style="list-style-type: none"> • Efficient Large-scale Training & Inference Algorithms • Reliable & Scalable Deep Learning with Theoretical Guarantees • Algorithm-hardware Co-design for AI Acceleration • Domains: Natural Language Processing, Computer Vision, Sciences 	
EDUCATION	Penn State University , PA, USA 2022 <ul style="list-style-type: none"> • College of IST Award for Excellent Teaching (top 2) University of Chinese Academy of Sciences , Beijing, China 2017 <ul style="list-style-type: none"> • Chinese Academy of Sciences President's Fellowship (The most prestigious award) Renmin University of China , Beijing, China 2014	
INDUSTRY EXPERIENCE	Microsoft Research (MSR) , Redmond, WA 2021 <ul style="list-style-type: none"> • Research Intern, Mentors: Subho Mukherjee, Xiaodong Liu, Debadeepta Dey, Ahmed H. Awadallah, Jianfeng Gao • Project: Task-agnostic Auto-Transformer Search • Publication: NeurIPS 2022 Moffett.AI , Los Altos, CA 2020 <ul style="list-style-type: none"> • Research Intern, Mentor: Ian En-Hsu Yen, Co-founder • Project: Knowledge-aware Pruning of Pre-trained Models • Project: Data-free Model Compression • Publication: NAACL 2021 and a U.S. patent NEC Labs America , Princeton, NJ 2019 <ul style="list-style-type: none"> • Research Intern, Mentor: Wei Cheng • Project: Knowledge Transfer in Multi-Task Learning • Project: Trend Learning in Multivariate Time Series • Publication: AAAI 2021, AAAI 2020 NEC Labs America , Princeton, NJ 2018 <ul style="list-style-type: none"> • Research Intern, Mentor: Wei Cheng, Senior Researcher • Project: Contrastive Anomaly Detection • Publication: SDM 2021 	
ACADEMIA EXPERIENCE	Penn State University 2017-2022 <ul style="list-style-type: none"> • Graduate Research Assistant, Adviser: Xiang Zhang • Thesis: Data-efficient Deep Learning Methods • Publication: NeurIPS'21, 2×AAAI'21, SDM'21, AAAI'20, IJCAI'19, ICDM'19, SDM'19 	

Chinese Academy of Sciences, Beijing, China 2014-2017

- Graduate Research Assistant, Adviser: [Yingjie Tian](#)
- Thesis: Efficient Multi-instance Learning
- Publication: PR'18, IJCNN'17, ITQM'16, AODS'15

Renmin University of China, Beijing, China 2012-2014

- Undergraduate Research Assistant, Adviser: [Wei Xu](#)
- Thesis: Ensemble Forecasting Model for Time Series Data
- Publication: IJGEI'15, HICSS'14

HONORS AND AWARDS

Doctor of Philosophy (Ph.D.)

- **College of IST Award for Excellence in Teaching Support (top 2)** 2019
- Third place winner (Eng.) in the 37rd annual PSU Graduate Exhibition 2022
- IST Travel Award (Fall) 2021
- NAACL Scholarship 2021
- SIAM Student Travel Award 2021
- IST Travel Award (Spring) 2021
- KDD Student Registration Award 2020
- AAI Student Scholarship 2020
- IST Travel Award (Fall) 2020
- IST Travel Award (Spring) 2019

Master of Science (M.S.)

- **Chinese Academy of Sciences President's Fellowship (top 1)** 2016
- Information Technology and Quantitative Management (ITQM) Best Paper 2016
- National Graduate Scholarship, China (2% in university) 2016
- Graduate Student Academic Scholarship 2017
- Graduate Student Academic Scholarship 2016
- Graduate Student Academic Scholarship 2015

Bachelor of Engineering (B.E.)

- First-class Scholarship of Sashixuan Elite Fund, China (5% in university) 2014
- Kwang-hua Scholarship of RUC, China 2014
- Second-class Scholarship of Excellent Student Cadre 2014
- Meritorious Winner in Mathematical Contest in Modeling, USA 2013
- First-class Scholarship of Social Work and Volunteer Service of RUC 2013

PUBLICATION SUMMARY

Published: 33 papers, **13** first-authored papers, **8** preprints, and **8** filed patents.
Impact: 1795 citations, h-index: **10**, i10-index: **12** (as of October 14th 2022)

PEER-REVIEWED CONFERENCE AND JOURNAL PAPERS

- [1] **Dongkuan Xu**, Subhabrata Mukherjee, Xiaodong Liu, Debadepta Dey, Ahmed H. Awadallah, Jianfeng Gao, and Xiang Zhang. S4: a High-sparsity, High-performance AI Accelerator [C]. The 36th Conference on Neural Information Processing Systems (**NeurIPS 2022**)
- [2] Ian En-Hsu Yen, Zhibin Xiao, **Dongkuan Xu**. S4: a High-sparsity, High-performance AI Accelerator [C]. Sparsity in Neural Networks 2022 Workshop (**SNN 2022**)
- [3] Shaoyi Huang, Ning Liu, Yueying Liang, Hongwu Peng, Hongjia Li, **Dongkuan Xu**, Mimi Xie, and Caiwen Ding. An Automatic and Efficient BERT Pruning for Edge AI Systems [C]. The 23rd IEEE International Society for Quality Electronic Design (**ISQED 2022**)
- [4] Shaoyi Huang*, **Dongkuan Xu***, Ian En-Hsu Yen, Sung-En Chang, Bingbing Li, Shiyang Chen, Mimi Xie, Hang Liu, and Caiwen Ding. Sparse Progressive Distillation: Resolv-

- ing Overfitting under Pretrain-and-Finetune Paradigm [C]. The 60th Annual Meeting of the Association for Computational Linguistics (**ACL 2022**)
Acceptance rate: 714/3350=21.3%
- [5] **Dongkuan Xu**, Wei Cheng, Dongsheng Luo, Haifeng Chen, and Xiang Zhang. InfoGCL: Information-Aware Graph Contrastive Learning [C]. The 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**)
Acceptance rate: 2372/9122=26.0%
- [6] **Dongkuan Xu**, Ian En-Hsu Yen, Jinxi Zhao, and Zhibin Xiao. Rethinking Network Pruning - under the Pre-train and Fine-tune Paradigm [C]. 2021 Annual Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL-HLT 2021**)
Acceptance rate: 477/1797=26.5%
- [7] Xin Dong, Yaxin Zhu, Zuohui Fu, **Dongkuan Xu**, and Gerard de Melo. Data Augmentation with Adversarial Training for Cross-Lingual NLI [C]. The 59th Annual Meeting of the Association for Computational Linguistics (**ACL 2021**)
Acceptance rate: 714/3350=21.3%
- [8] **Dongkuan Xu**, Wei Cheng, Jingchao Ni, Dongsheng Luo, Masanao Natsumeda, Dongjin Song, Bo Zong, Haifeng Chen, and Xiang Zhang. Deep Multi-Instance Contrastive Learning with Dual Attention for Anomaly Precursor Detection [C]. The 21th SIAM International Conference on Data Mining (**SDM 2021**)
Acceptance rate: 85/400=21.3%
- [9] **Dongkuan Xu**, Wei Cheng, Xin Dong, Bo Zong, Wenchao Yu, Jingchao Ni, Dongjin Song, Xuchao Zhang, Haifeng Cheng, and Xiang Zhang. Multi-Task Recurrent Modular Networks [C]. The 35th AAI International Conference on Artificial Intelligence (**AAAI 2021**)
Acceptance rate: 1692/7911=21.4%
- [10] **Dongkuan Xu**, Junjie Liang, Wei Cheng, Hua Wei, Haifeng Cheng, and Xiang Zhang. Transformer Style Relational Reasoning with Dynamic Memory Updating for Temporal Network Modeling [C]. The 35th AAI International Conference on Artificial Intelligence (**AAAI 2021**)
Acceptance rate: 1692/7911=21.4%
- [11] Hua Wei, **Dongkuan Xu**, Junjie Liang, and Zhenhui Li. How Do We Move: Modeling Human Movement with System Dynamics [C]. The 35th AAI International Conference on Artificial Intelligence (**AAAI 2021**)
Acceptance rate: 1692/7911=21.4%
- [12] Junjie Liang, Yanting Wu, **Dongkuan Xu**, and Vasant Honavar. Longitudinal Deep Kernel Gaussian Process Regression [C]. The 35th AAI International Conference on Artificial Intelligence (**AAAI 2021**)
Acceptance rate: 1692/7911=21.4%
- [13] Dongsheng Luo, Wei Cheng, **Dongkuan Xu**, Wenchao Yu, Bo Zong, Haifeng Chen, and Xiang Zhang. Parameterized Explainer for Graph Neural Network [C]. The 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)
Acceptance rate: 1900/9454=20.1%
- [14] Xin Dong, Yaxin Zhu, Yupeng Zhang, Zuohui Fu, **Dongkuan Xu**, Sen Yang, and Gerard de Melo. Leveraging Adversarial Training in Self-Learning for Cross-Lingual Text Classification [C]. The 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2020**)
Acceptance rate: 300/1062=28.2%

- [15] **Dongkuan Xu**, Wei Cheng, Bo Zong, Dongjin Song, Jingchao Ni, Wenchao Yu, Yanchi Liu, Haifeng Chen, and Xiang Zhang. Tensorized LSTM with Adaptive Shared Memory for Learning Trends in Multivariate Time Series [C]. The 34th AAAI International Conference on Artificial Intelligence (**AAAI 2020**)
Acceptance rate: $1591/7737=20.6\%$
- [16] Junjie Liang, **Dongkuan Xu**, Yiwei Sun, and Vasant Honavar. Longitudinal Multi-Level Factorization Machines [C]. The 34th AAAI International Conference on Artificial Intelligence (**AAAI 2020**)
Acceptance rate: $1591/7737=20.6\%$
- [17] **Dongkuan Xu**, Wei Cheng, Dongsheng Luo, Yameng Gu, Xiao Liu, Jingchao Ni, Bo Zong, Haifeng Chen, and Xiang Zhang. Adaptive Neural Network for Node Classification in Dynamic Networks [C]. The 19th IEEE International Conference on Data Mining (**ICDM 2019**)
Acceptance rate: $183/930=19.7\%$
- [18] **Dongkuan Xu**, Wei Cheng, Dongsheng Luo, Xiao Liu, and Xiang Zhang. Spatio-Temporal Attentive RNN for Node Classification in Temporal Attributed Graphs [C]. The 28th International Joint Conference on Artificial Intelligence (**IJCAI 2019**)
Acceptance rate: $850/4752=17.9\%$
- [19] **Dongkuan Xu**, Wei Cheng, Bo Zong, Jingchao Ni, Dongjin Song, Wenchao Yu, Yuncong Chen, Haifeng Chen, and Xiang Zhang. Deep Co-Clustering [C]. The 19th SIAM International Conference on Data Mining (**SDM 2019**)
Acceptance rate: $90/397=22.7\%$
- [20] Jingchao Ni, Shiyu Chang, Xiao Liu, Wei Cheng, Haifeng Chen, **Dongkuan Xu**, and Xiang Zhang. Co-Regularized Deep Multi-Network Embedding [C]. The 27th International Conference on World Wide Web (**WWW 2018**)
Acceptance rate: $170/1175=14.5\%$
- [21] **Dongkuan Xu**, Wei Zhang, Jia Wu, and Yingjie Tian. Multiple Instance Learning Based on Positive Instance Graph [J]. arXiv preprint arXiv: 1612.03550 (2016)
- [22] Yingjie Tian, **Dongkuan Xu**, and Chunhua Zhang. A Review of Multi-Instance Learning Research [J]. Operations Research Transactions, 2018, 02: 1-17
- [23] **Dongkuan Xu**, Jia Wu, Dewei Li, Yingjie Tian, Xinquan Zhu, and Xindong Wu. SALE: Self-Adaptive LSH Encoding for Multi-Instance Learning [J]. **Pattern Recognition**, 2017 (**7.74 impact factor**)
- [24] Dewei Li, **Dongkuan Xu**, Jingjing Tang, and Yingjie Tian. Metric Learning for Multi-Instance Classification with Collapsed Bags [C]. The 30th IEEE International Joint Conference on Neural Networks (**IEEE IJCNN 2017**)
- [25] **Dongkuan Xu**, Jia Wu, Wei Zhang, and Yingjie Tian. PIGMIL: Positive Instance Detection via Graph Updating for Multiple Instance Learning [C]. arXiv preprint arXiv:1612.03550, 2016
- [26] Dewei Li, Wei Zhang, **Dongkuan Xu**, and Yingjie Tian. Multi-Metrics Classification Machine [C]. International Conference on Information Technology and Quantitative Management (**ITQM 2016**) (**Best Paper Award**)
- [27] **Dongkuan Xu**, and Yingjie Tian. A Comprehensive Survey of Clustering Algorithms [J]. Annals of Data Science, 2015, 2(2): 165-193

[28] **Dongkuan Xu**, Tianjia Chen, and Wei Xu. A Support Vector Machine-Based Ensemble Prediction for Crude Oil Price with VECM and STEPMS [J]. International Journal of Global Energy Issues, 2015

[29] **Dongkuan Xu**, Yi Zhang, Cheng Cheng, Wei Xu, and Likuan Zhang. A Neural Network-Based Ensemble Prediction Using PMRS and ECM [C]. The 47th IEEE Hawaii International Conference on System Sciences (**HICSS 2014**)

PREPRINTS AND SUBMISSIONS (* EQUAL CONTRIBUTION)

[30] **Dongkuan Xu**, and Ian En-Hsu Yen. Neural Network Pruning without Retraining [C].

[31] Junjie Liang, Hua Wei, **Dongkuan Xu**, and Vasant G Honavar. Inducing Clusters Deep Kernel Gaussian Process for Longitudinal Data [C].

[32] Dongsheng Luo, Wei Cheng, Yingheng Wang, **Dongkuan Xu**, Jingchao Ni, Wenchao Yu, Xuchao Zhang, Yanchi Liu, Haifeng Chen, and Xiang Zhang. Information-Aware Time Series Meta-Contrastive Learning [C].

[33] Dongsheng Luo, Wei Cheng, **Dongkuan Xu**, Feng Han, Xiao Liu, Wenchao Yu, Haifeng Chen, and Xiang Zhang. Inductive and Efficient Explanations for General Graph Neural Networks [J].

TEACHING EXPERIENCE

Instructor at NC State

- CSC 791&591: Advanced Topics in Efficient Deep Learning Fall 2022
Course Materials: [Dive into Deep Learning](#)

Teaching Assistant at Penn State University

- SRA 268, Visual Analytics Fall 2021
Instructor: Prof. [Mahir Akgun](#)
Course Materials: [Visual Analytics with Tableau](#)
(**Responsible for teaching lab classes of 46 students**)
- SRA 450, Cybercrime and Cyberwar Fall 2021
Instructor: Prof. [John Hodgson](#)
Course Materials: [Cybersecurity: What Everyone Needs to Know](#)
- DS/CMPSC 410, Programming Models for Big Data Spring 2021
Instructor: Prof. [John Yen](#)
Course Materials: [Learning Spark](#)
- SRA 365, Statistics for Security and Risk Analysis Fall 2020
Instructor: Dr. [James Farrugia](#)
Course Materials: [Discovering Statistics Using R](#)
- DS 402, Introduction to Social Media Mining Spring 2020
Instructor: Prof. [Suhang Wang](#)
Course Materials: [Social Media Mining: An Introduction](#)
- SRA 365, Statistics for Security and Risk Analysis Spring 2019
Instructor: Dr. [Katherine Hamilton](#)

Course Materials: [Foundations and Practice of Intermediate Statistics](#)
- IST 210, Organization of Data Fall 2018
Instructor: Prof. [Xiang Zhang](#)
Course Materials: [Database Systems Concepts](#)
(**The Award for Excellence in Teaching Support**)

Guest Lecturer

- COSI 133A, Graph Mining Fall 2021
Brandeis University
Slides: [Link](#)
- COSI 165B, Deep Learning Spring 2021
Brandeis University
Slides: [Link](#)

MENTORING EXPERIENCE

- Shaoyi Huang, Ph.D. student at University of Connecticut
Topic I: Sparse Neural Architecture Search
Topic II: Few-shot BERT Distillation
- Bowen Lei, Ph.D. student at Texas A&M University
Topic: Theoretical Foundations of Sparse Training
- Shuren He, Ph.D. student at Texas A&M University
Topic: Theoretical Foundations of Sparse Training
- Zhenglun Kong, Ph.D. student at Northeastern University
Topic: Efficient Transformer Architecture Search
- Xukun Liu, Undergraduate at SUSTech
Topic: Efficient Transformer Architecture Search
- Haoze Lv, Undergraduate at SUSTech
Topic: Efficient Transformer Architecture Search
- Tianxiang Zhao, Ph.D. student at Penn State University
Topic: Graph Transfer Learning
- Jie Zhang, Master at Zhejiang University
Topic: Efficient Data-centric AI
- Lei Zhang, Master at Zhejiang University
Topic: Efficient Data-centric AI
- Xiang Pan, Master at New York University
Topic: Efficient Data-centric AI
- Wei Zhang, Ph.D. student at City University of Hong Kong
Topic: Cost-Sensitive Multi-Instance Learning
- Yilong Zhai, Master at McMaster University
Topic: Data-efficient GeoAI
- Jiasheng Gu, Master at University of Southern California
Topic: Robust Code Generation
- Shuya Li, Master at Tsinghua University
Topic: Efficient Intelligent Traffic Learning
- Shengkun Tang, Undergraduate at Wuhan University
Topic: Efficient Multi-modal Learning
- Tianchi Zhang, Master at University of Michigan - Ann Arbor
Topic: Efficient Multi-modal Learning
- Xuelin Kong, Master at National University of Singapore
Topic: Efficient Multi-modal Learning
- Weizhi Gao, Master at University of Chinese Academy of Sciences

Topic: Robust Generalized Model Compression

- Yanbo Fang, Master at Rutgers University
Topic: Robust Generalized Model Compression
- Jianwei Li, Master at San Jose State University
Topic: Robust Generalized Model Compression
- Shangsi Chen, Master at Shenzhen University
Topic: Efficient Open-domain Question Answering
- Dongyao Zhu, Undergraduate at UCSD
Topic: Discrete Sampling

PROFESSIONAL
SERVICE

Column Editor

- ACM SIGAI Newsletter

Academic Committee Member

- Machine Learning & Natural Language Processing Community (MLNLP)

Workshop Chair

- The 1st Workshop on DL-Hardware Co-Design for AI Acceleration @AAAI2023

Senior Program Committee

- International Joint Conferences on Artificial Intelligence (IJCAI) 2021

Program Committee

- Neural Information Processing Systems (NeurIPS) 2020, 2021, 2022
- International Conference on Learning Representations (ICLR) 2021, 2022
- International Conference on Machine Learning (ICML) 2021, 2022
- AAI Conference on Artificial Intelligence (AAI) 2020, 2021, 2022
- SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2020, 2021, 2022
- Association for Computational Linguistics (ACL) Rolling Review 2022
- North American Chapter of the Association for Computational Linguistics (NAACL) 2021
- Conference on Empirical Methods in Natural Language Processing (EMNLP) 2020, 2021
- International Conference on Computational Linguistics (COLING) 2022
- Learning on Graphs Conference (LoG) 2022
- International Joint Conferences on Artificial Intelligence (IJCAI) 2020, 2022
- ACM International Conference on Web Search and Data Mining (WSDM) 2022
- SIAM International Conference on Data Mining (SDM) 2022
- European Chapter of the Association for Computational Linguistics (EACL) 2021
- Conference on Information and Knowledge Management (CIKM) 2020, 2021, 2022
- Asia-Pacific Chapter of the Association for Computational Linguistics & International Joint Conference on Natural Language Processing (AAACL-IJCNLP) 2020
- International Joint Conference on Neural Networks (IJCNN) 2018, 2019, 2020, 2021

Journal Reviewer

- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Cybernetics
- Information Fusion
- ACM Transactions on Knowledge Discovery from Data (TKDD)
- Pattern Recognition
- Neural Networks
- ACM Transactions on Asian and Low-Resource Language Information Processing
- IEEE Access
- Neural Computation
- Complexity

- Soft Computing
- Journal of Sports Engineering and Technology
- Complex & Intelligent Systems
- Multimedia Tools and Applications
- Big Data

External Conference Reviewer

- AAAI'18-20, ACM CIKM'18-19, Big Data'18, ICDM'18-19, IJCNN'16-17, ITQM'16-17, KDD'18-21, SDM'18-22, TheWebConf (WWW)'20-22, WSDM'20-21

Conference Volunteer

- The Annual Conference of NAACL-HLT, 2021
- Backuping SDM Session Chairs, 2021
- The 35th AAAI Conference on Artificial Intelligence, 2021
- The 26th SIGKDD Conference on Knowledge Discovery and Data Mining, 2020

PATENT & APPLICATIONS

- System and Method for Knowledge-Preserving Neural Network Pruning
Enxu Yan, **Dongkuan Xu**, and Zhibin Xiao
U.S. Patent. 11,200,497. Dec. 2021
- Neural Network Pruning Method and System via Layerwise Analysis
Enxu Yan, **Dongkuan Xu**, and Jiachao Liu
U.S. Patent App. 17/107,046. Nov. 2020
- Bank-Balanced Sparse Activation Feature Maps for Neural Network Models
Enxu Yan, **Dongkuan Xu**, and Jiachao Liu
U.S. Patent App. Sep. 2020
- Unsupervised Multivariate Time Series Trend Detection for Group Behavior Analysis
Wei Cheng, Haifeng Chen, Jingchao Ni, **Dongkuan Xu**, and Wenchao Yu
U.S. Patent App. 16/987,734. Mar. 2021
- Tensorized LSTM with Adaptive Shared Memory for Learning Trends
Wei Cheng, Haifeng Chen, Jingchao Ni, **Dongkuan Xu**, and Wenchao Yu
U.S. Patent App. 16/987,789. Mar. 2021
- Adaptive Neural Networks for Node Classification in Dynamic Networks
Wei Cheng, Haifeng Chen, Wenchao Yu, and **Dongkuan Xu**
U.S. Patent App. 16/872,546. Nov. 2020
- Spatio Temporal Gated Recurrent Unit
Wei Cheng, Haifeng Chen, and **Dongkuan Xu**
U.S. Patent App. 16/787,820. Aug. 2020
- Automated Anomaly Precursor Detection
Wei Cheng, **Dongkuan Xu**, Haifeng Chen, and Masanao Natsumeda
U.S. Patent App. 16/520,632. Feb. 2020

PROFESSIONAL TALKS

- Parameter Efficiency: Democratizing AI at Scale (Slides)
Brandeis University, Waltham, USA, Dec 2021
- Chasing Efficiency of Pre-trained Language Models
Microsoft Research Lab, Redmond, Washington, USA, Jun 2021
- BERT Pruning: Structural vs. Sparse (Slides)
Brandeis University, Waltham, USA, Apr 2021

- BERT, Compression, and Applications (Slides)
Xpeng Motors, Mountain View, USA, Apr 2021
- BERT Architecture and Computation Analysis
Moffett.AI, Los Altos, USA, May 2020.
- Learning Trends in Multivariate Time Series (Slides)
In AAAI, New York, USA, Feb 2020
- Node Classification in Dynamic Networks (Slides)
In ICDM, Beijing, China, Nov 2019
- Anomaly Precursor Detection via Multi-Instance Contrastive Learning
NEC Laboratories America, Princeton, USA, May 2019
- Deep Co-Clustering (Slides)
In SDM, Calgary, Canada, May 2019
- Efficient Multiple Instance Learning (Slides)
NEC Laboratories America, Princeton, USA, May 2018

EXTRACURRICULAR ACTIVITIES	• ACM Student Membership	2021-Present
	• ACL Membership	2021-Present
	• AAAI Student Membership	2019-2021
	• SIAM CAS Student Member	2016-2021
	• Volunteer of Beijing Volunteer Service Federation	2012-2014
	• President of Youth Volunteers Association of School of Information	2012-2013
	• Leader of National Undergraduate Training Programs	2011-2012
SKILLS	• Programming: Python, C, R, MATLAB, SQL, \LaTeX	
	• Tools: PyTorch, TensorFlow, Keras, Scikit-learn, SPSS	
REFEREES	Available upon request	