

Xiangyu Zhao

CONTACT INFORMATION	Lau Ming Wai Academic Building City University of Hong Kong 83 Tat Chee Avenue Kowloon Tong, Hong Kong E-mail: xianzhao@cityu.edu.hk	Homepage: https://zhaoxyai.github.io/ LinkedIn: https://linkedin.com/in/zhaoxiangyu/ scholar.google.com/citations?user=Nkm9r2IAAAAJ Phone: +86 18630109812 (CHN) Phone: +852 9755 8232 (HK)
POSITIONS	Assistant Professor (tenure-track) , City University of Hong Kong School of Data Science	Sep 2021 - Present
	Director , City University of Hong Kong Applied Machine Learning (AML) Lab	Sep 2021 - Present
	Faculty Member , City University of Hong Kong Hong Kong Institute for Data Science	Oct 2021 - Present
EDUCATION	Michigan State University	
	Doctor of Philosophy (Ph.D.) in Computer Science and Engineering	Jan 2017 - May 2021
	<ul style="list-style-type: none">• Advisor: Prof. Jiliang Tang• Thesis: Adaptive and Automated Deep Recommender System• Global Top 100 Chinese New Stars in Artificial Intelligence, Criteo Research Faculty Award, Bytedance Research Collaboration Award, MSU Dissertation Completion Fellowship	
	University of Science and Technology of China	
	Master of Science (M.S.) in Computer Science and Technology	Sep 2014 - Jun 2017
	<ul style="list-style-type: none">• Advisor: Prof. Enhong Chen• Thesis: Exploring the Choice under Conflict for Social Event Participation• Outstanding Master's Thesis Award (Top 15 in Anhui Province, China), Outstanding Graduate Award of USTC, National Scholarship for Graduate Students of China (Highest National Scholarship)	
	University of Electronic Science and Technology of China	
	Bachelor of Engineering (B.Eng.) in Software Engineering	Sep 2010 - Jun 2014
	<ul style="list-style-type: none">• Advisor: Prof. Tao Zhou and Prof. Ming Tang• Thesis: Identifying Effective Multiple Spreaders by Coloring Complex Networks• Outstanding Graduation Thesis Award (1% in university, 1/205 in department), Outstanding Graduate Award of UESTC	
RESEARCH EXPERIENCE	Data Science and Engineering Lab , Michigan State University	
	Ph.D. Research Assistant	Jan 2017 - May 2021
	<ul style="list-style-type: none">• Advisor: Prof. Jiliang Tang• Research Interests: Machine Learning, Information Retrieval, Urban Computing• 20+ papers in top conferences (e.g., KDD, WWW, SIGIR, AAAI, ICDE, ICDM, CIKM, WSDM, RecSys) and journals (e.g., SIGKDD, SIGWeb)	
	Applied Machine Learning Research , Bytedance (US)	
	Research Intern	Jan 2021 - Apr 2021
	<ul style="list-style-type: none">• Mentor: Dr. Chong Wang• Worked on AutoML for Recommendation/Advertising• The outcomes were published in KDD'21, ICDM'21	
	Artificial Intelligence Foundation , LinkedIn	
	Research Engineering Intern	May 2020 - Aug 2020
	<ul style="list-style-type: none">• Mentors: Dr. Huiji Gao and Dr. Bo Long• Worked on AutoML for Search/Recommendation/Advertising• The outcomes were published in WWW'21	

Applied Machine Learning, Bytedance

Research Intern

Jun 2019 - Dec 2019

- Mentors: Dr. Chong Wang and Xiaobing Liu
- Worked on Reinforcement Learning and AutoML for Advertising/Recommendation
- The outcomes were published in KDD'20, SIGIR'20, AAAI'21

Advertising Department, Bytedance

Invited Visiting Scholar

Sep 2018

- Mentor: Dr. Xiwang Yang
- Investigated Reinforcement Learning Based Computational Advertising

Data Science Lab, JD.com

Research Intern

May 2018 - Aug 2018

- Mentor: Dr. Dawei Yin
- Worked on Reinforcement Learning Based Recommender System
- The outcomes were published in CIKM'20, SIGIR'20, WWW'21

Data Science Lab, JD.com

Research Intern

Jun 2017 - Aug 2017

- Mentor: Dr. Dawei Yin
- Worked on Deep Learning Based Recommender System
- The outcomes were published in KDD'18, RecSys'18, ACM SIGWEB'19

Laboratory of Big Data Analysis and Application, University of Science and Technology of China

M.S. Research Assistant

Sep 2014 - Dec 2016

- Advisor: Prof. Enhong Chen
- Research Interests: Data Mining, Urban Computing
- The outcomes were published in KDD'16, ICDM'17, DASFAA'17, KSEM'17

Big Data Research Center, University of Electronic Science and Technology of China

Undergraduate Research Assistant

Sep 2011 - Jun 2014

- Advisors: Prof. Tao Zhou and Prof. Ming Tang
- Research Interests: Social Network and Complex Network Analysis, Complex System
- The outcomes were published in Europhysics Letters, Acta Physica Sinica

PUBLICATIONS Tutorial and Workshop Proposals

- **Xiangyu Zhao**, Wenqi Fan, Dawei Yin, Jiliang Tang, “*Deep Recommender System: Fundamentals and Advances*”, The Web Conference 2021 (**WWW'2021**).
- Jiliang Tang, **Xiangyu Zhao**, Dawei Yin, Long Xia, Huiji Gao, Rui Chen, Jason Gauci, “*Deep Reinforcement Learning for Knowledge Discovery*”, The Web Conference 2021 (**WWW'2021**).
- Weinan Zhang, **Xiangyu Zhao**, Li Zhao, Dawei Yin, Grace Hui Yang, “*2nd Deep Reinforcement Learning for Information Retrieval: Fundamentals and Advances*”, 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR'2021**).
- Wenqi Fan, **Xiangyu Zhao**, Dawei Yin, Jiliang Tang, “*Deep Learning for Recommendations: Fundamentals and Advances*”, 30th International Joint Conference on Artificial Intelligence (**IJCAI'2021**).
- Weinan Zhang, **Xiangyu Zhao**, Li Zhao, Dawei Yin, Grace Hui Yang, Alex Beutel, “*Deep Reinforcement Learning for Information Retrieval: Fundamentals and Advances*”, 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR'2020**).
- Jiliang Tang, Dawei Yin, Long Xia, Alex Beutel, Minmin Chen, Shauki Jain, **Xiangyu Zhao**, “*Deep Reinforcement Learning for Knowledge Discovery*”, 25th ACM SIGKDD Conference on Knowledge Discovery and Data (**KDD'2019**).

Conference and Journal Papers

- **Xiangyu Zhao**, Wenqi Fan, Hui Liu, Jiliang Tang, “*Multi-type Urban Crime Prediction*”, 36th AAAI Conference on Artificial Intelligence (**AAAI’2022**).
- **Xiangyu Zhao**, Haochen Liu, Wenqi Fan, Hui Liu, Jiliang Tang, Chong Wang, Ming Chen, Xudong Zheng, Xiaobing Liu, Xiwang Yang, “*AutoEmb: Automated Embedding Dimensionality Search in Streaming Recommendations*”, 21st International Conference on Data Mining (**ICDM’2021**), **Best-ranked Papers**.
- **Xiangyu Zhao**, Haochen Liu, Wenqi Fan, Hui Liu, Jiliang Tang, Chong Wang, “*AutoLoss: Automated Loss Function Search in Recommendations*”, 27th ACM SIGKDD Conference on Knowledge Discovery and Data (**KDD’2021**).
- **Xiangyu Zhao**, Haochen Liu, Hui Liu, Jiliang Tang, Weiwei Guo, Jun Shi, Sida Wang, Huiji Gao, Bo Long, “*AutoDim: Field-aware Embedding Dimension Search in Recommender Systems*”, The Web Conference 2021 (**WWW’2021**).
- **Xiangyu Zhao**, Long Xia, Lixin Zou, Hui Liu, Dawei Yin, Jiliang Tang, “*UserSim: User Simulation via Supervised Generative Adversarial Network*”, The Web Conference 2021 (**WWW’2021**).
- **Xiangyu Zhao**, Changsheng Gu, Haoshenglun Zhang, Xiwang Yang, Xiaobing Liu, Jiliang Tang, Hui Liu, “*DEAR: Deep Reinforcement Learning for Online Advertising Impression in Recommender Systems*”, 35th AAAI Conference on Artificial Intelligence (**AAAI’2021**).
- Yingqiang Ge, Shuchang Liu, Ruoyuan Gao, Yikun Xian, Yunqi Li, **Xiangyu Zhao**, Changhua Pei, Fei Sun, Junfeng Ge, Wenwu Ou, Yongfeng Zhang, “*Towards Long-term Fairness in Recommendation*”, 13th International Conference on Web Search and Data Mining (**WSDM’2021**).
- Wenqi Fan, Tyler Derr, **Xiangyu Zhao**, Yao Ma, Hui Liu, Jianping Wang, Jiliang Tang, Qing Li, “*Attacking Black-box Recommendations via Copying Cross-domain User Profiles*”, 37th IEEE International Conference on Data Engineering (**ICDE’2021**).
- **Xiangyu Zhao**, Long Xia, Lixin Zou, Dawei Yin, Hui Liu, Jiliang Tang, “*Whole-Chain Recommendations*”, 29th ACM International Conference on Information and Knowledge Management (**CIKM’2020**).
- **Xiangyu Zhao**, Xudong Zheng, Xiwang Yang, Xiaobing Liu, Jiliang Tang, “*Jointly Learning to Recommend and Advertise*”, 26th ACM SIGKDD Conference on Knowledge Discovery and Data (**KDD’2020**).
- **Xiangyu Zhao***, Haochen Liu*, Chong Wang, Xiaobing Liu, Jiliang Tang, “*Automated Embedding Size Search in Deep Recommender Systems*”, 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR’2020**).
- Lixin Zou, Long Xia, Yulong Gu, **Xiangyu Zhao**, Weidong Liu, Jimmy Xiangji Huang, Dawei Yin, “*Neural Interactive Collaborative Filtering*”, 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR’2020**).
- **Xiangyu Zhao**, Liang Zhang, Long Xia, Zhuoye Ding, Dawei Yin, Jiliang Tang, “*Deep Reinforcement Learning for List-wise Recommendations*”, 1st Workshop on Deep Reinforcement Learning for Knowledge Discovery (**DRL4KDD’2019**).
- **Xiangyu Zhao**, Long Xia, Jiliang Tang, Dawei Yin, “*Deep Reinforcement Learning for Search, Recommendation, and Online Advertising: A Survey*”, ACM SIGWEB Newsletter (**SIGWEB**), 2019, Issue Spring: Article No.4.
- **Xiangyu Zhao**, Long Xia, Liang Zhang, Zhuoye Ding, Dawei Yin, Jiliang Tang, “*Deep Reinforcement Learning for Page-wise Recommendations*”, 12th ACM Recommender Systems Conference (**RecSys’2018**).
- **Xiangyu Zhao**, Liang Zhang, Zhuoye Ding, Long Xia, Jiliang Tang, Dawei Yin, “*Recommendations with Negative Feedback via Pairwise Deep Reinforcement Learning*”, 24th ACM SIGKDD Conference on Knowledge Discovery and Data (**KDD’2018**).

- **Xiangyu Zhao**, Jiliang Tang, “*Crime in Urban Areas: A Data Mining Perspective*”, ACM SIGKDD Explorations Newsletter (**SIGKDD Explorations**), 2018, 20(1): 1-12.
- **Xiangyu Zhao**, Jiliang Tang, “*Modeling Temporal-Spatial Correlations for Crime Prediction*”, 26th ACM International on Conference on Information and Knowledge Management (**CIKM’2017**).
- **Xiangyu Zhao**, Tong Xu, Yanjie Fu, Enhong Chen, Hao Guo, “*Incorporating Spatio-Temporal Smoothness for Air Quality Inference*”, 17th International Conference on Data Mining (**ICDM’2017**).
- **Xiangyu Zhao**, Jiliang Tang, “*Exploring Transfer Learning for Crime Prediction*”, 17th International Conference on Data Mining (**ICDM’2017**), Ph.D. Forum.
- Tong Xu, Hengshu Zhu, **Xiangyu Zhao**, Qi Liu, Hao Zhong, Enhong Chen, Hui Xiong, “*Taxi Driving Behavior Analysis in Latent Vehicle-to-Vehicle Networks: A Social Influence Perspective*”, 22nd ACM SIGKDD Conference on Knowledge Discovery and Data (**KDD’2016**).
- **Xiangyu Zhao**, Tong Xu, Qi Liu, Hao Guo, “*Exploring the Choice under Conflict for Social Event Participation*”, 21st International Conference on Database Systems for Advanced Applications (**DASFAA’2016**).
- Hao Guo, Xin Li, Ming He, **Xiangyu Zhao**, Guiquan Liu, Guandong Xu, “*CoSoLoRec: Joint Factor Model with Content, Social, Location for Heterogeneous Point-of-Interest Recommendation*”, 9th International Conference on Knowledge Science, Engineering and Management (**KSEM’2016**).
- **Xiangyu Zhao**, Bin Huang, Ming Tang, Haifeng Zhang, Duanbing Chen, “*Identifying Effective Multiple Spreaders by Coloring Complex Networks*”, Europhysics Letters (**EPL**), 2015, 108(6): 68005. (SCI IF: 2.095)
- Bin Huang, **Xiangyu Zhao**, Kai Qi, Ming Tang, Younghae Do, “*Coloring the Complex Networks and its Application for Immunization Strategy*”, Acta Physica Sinica (**APS**), 2013, 62(21): 218902-218902. (SCI IF: 0.845)

**PROPOSAL
WRITING**

Personalized Medical Content Recommendation System based on Multimodal and AutoML
PI: Xiangyu Zhao

- **Role:** Wrote the proposal; Lead of the project
- **Result:** Submitted to CCF-Tencent Open Fund and was funded in 2021

Adaptive and Automated Deep Recommender Systems

PI: Xiangyu Zhao

- **Role:** Wrote the proposal; Lead of the project
- **Result:** Submitted to MSU Dissertation Completion Fellowship and was funded in 2020

Deep Reinforcement Learning for Computational Advertising

Co-I: Xiangyu Zhao, PI: Dr. Jiliang Tang

- **Role:** Lead of the project; Designed and wrote the draft of the proposal
- **Result:** Submitted to Bytedance Research Collaboration Award and was funded in 2018

Deep Reinforcement Learning for Capturing Real-Time Feedback

Co-I: Xiangyu Zhao, PI: Dr. Jiliang Tang

- **Role:** Lead of the project; Designed and wrote the draft of the proposal
- **Result:** Submitted to Criteo Faculty Research Award and was funded in 2018

Identifying Effective Multiple Spreaders by Coloring Complex Networks

PI: Xiangyu Zhao

- **Role:** Designed and wrote the draft of the proposal
- **Result:** Submitted to Ginkgo Innovation and Entrepreneurship Fund and was funded in 2013, awarded as outstanding completed project

Epidemic spreading on multi-relational networks

Co-I: Xiangyu Zhao, PI: Ruiqi Li

- **Role:** Principal team member
- **Result:** Submitted to Ginkgo Innovation and Entrepreneurship Fund and was funded in 2012, awarded as outstanding completed project

TEACHING EXPERIENCE	City University of Hong Kong	
	Lecturer	Jan 2022 - May 2022
	• Course: “ <i>Deep Learning</i> ”, for graduate students	
	International Joint Conference on Artificial Intelligence 2021 (IJCAI’21)	
	Conference Tutor	Aug 2021
	• Tutorial: “ <i>Deep Learning for Recommendations: Fundamentals and Advances</i> ”	
	The Web Conference 2021 (WWW’21)	
	Conference Tutor	Apr 2021
	• Tutorial: “ <i>Deep Recommender System: Fundamentals and Advances</i> ”	
	Noah’s Ark Lab, Huawei	
	Invited Talk	Dec 2020
	• Topic: “ <i>Automated Machine Learning (AutoML) based Recommendations</i> ”	
	East China Normal University	
	Guest Lecturer	Nov 2019
	• Topic: “ <i>Urban Security and Crime Prediction</i> ”	
	Shandong University	
	Guest Lecturer	Sep 2019
	• Topic: “ <i>Deep Reinforcement Learning for Online Advertising</i> ”	
	TAL Education Group	
	Invited Talk	Aug 2019
	• Topic: “ <i>Deep Reinforcement Learning based Recommendations</i> ”	
	Beijing University of Chemical Technology	
	Guest Lecturer	Jul 2019
	• Topic: “ <i>Urban Security and Crime Prediction</i> ”	
	Leiphone Online Course	
	Lecturer	Nov 2018
	• Course: “ <i>Deep Reinforcement Learning for E-commerce</i> ”	
	Kuaishou.com	
	Invited Talk	Aug 2018
	• Topic: “ <i>Deep Reinforcement Learning based Recommendations</i> ”	
	University of Science and Technology of China	
	Teaching Assistant	Sep 2015 - Jan 2016
	• Course: “ <i>Machine Learning and Knowledge Discovery</i> ”, for graduate students	
	University of Electronic Science and Technology of China	
	Teaching Assistant	Jan 2013 - Jun 2013
	• Course: “ <i>Computer Science Research</i> ”, for undergraduate students	

SERVICES

Organizer

- MLNLP: Founding academic committee members Oct 2021
The largest AI community in China with 800,000 followers
- 2nd Workshop on Reinforcement Learning for Information Retrieval@SIGIR'21 Jul 2021
One of the most popular workshops at SIGIR'21 with more than 200 attendees
- 2nd Workshop on Deep Reinforcement Learning for Knowledge Discovery@WWW'21 Apr 2021
One of the most popular workshops at WWW'21 with more than 200 attendees
- 27th IntConference on Neural Information Processing (ICONIP'20) Nov 2020
Session Chair of Natural Language Processing Session
- Workshop on Reinforcement Learning for Information Retrieval@SIGIR'20 Jul 2020
One of the most popular workshops at SIGIR'20 with more than 200 attendees
- Workshop on Deep Reinforcement Learning for Knowledge Discovery@KDD'19 Aug 2019
One of the most popular workshops at KDD'19 with more than 500 attendees

Conference Senior Program Committee Member

- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2022
- ACM International Conference on Web Search and Data Mining (WSDM) 2022
- International Joint Conferences on Artificial Intelligence (IJCAI) 2021

Conference Program Committee Member

- AAAI Conference on Artificial Intelligence (AAAI) 2020-2022
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD) 2021-2022
- International Joint Conferences on Artificial Intelligence (IJCAI) 2020-2022
- ACM International Conference on Web Search and Data Mining (WSDM) 2022
- International Conference on Learning Representations (ICLR) 2020-2022
- SIAM International Conference on Data Mining (SDM) 2022
- ACM Conference on Recommender Systems (RecSys) 2019-2021
- International Conference on Machine Learning (ICML) 2021
- Conference on Neural Information Processing Systems (NeurIPS) 2021
- European Conference on Information Retrieval (ECIR) 2021
- Conference on Information and Knowledge Management (CIKM) 2020
- IEEE International Conference on Big Data (BigData) 2018-2020
- Conference on Neural Information Processing (ICONIP) 2020
- Reinforcement Learning for Real Life@ICML'19 2019-2021
- Workshop on Artificial Intelligence for Education@AAAI'20 2020
- Workshop on Industrial Recommendation Systems@KDD'20 2020
- Conference on Natural Language Processing and Chinese Computing (NLPCC) 2019

Conference Sub-Reviewer

• The Web Conference (WWW)	2018-2021
• ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR)	2017-2021
• Annual Meeting of the Association for Computational Linguistics (ACL)	2021
• ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2016-2020
• ACM International Conference on Web Search and Data Mining (WSDM)	2018-2020
• International Conference on Web and Social Media (ICWSM)	2017-2020
• AAAI Conference on Artificial Intelligence (AAAI)	2017-2019
• Conference on Information and Knowledge Management (CIKM)	2016-2019
• Conference on Empirical Methods in Natural Language Processing (EMNLP)	2019
• Conference on Advances in Social Networks Analysis and Mining (ASONAM)	2015-2019
• ACM Conference on Recommender Systems (RecSys)	2016-2018
• ACM CHI Conference on Human Factors in Computing Systems (CHI)	2018
• SIAM International Conference on Data Mining (SDM)	2017
• Conference on Database Systems for Advanced Applications (DASFAA)	2016-2017
• IEEE International Conference on Data Mining (ICDM)	2016
• Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD)	2016
• APWeb-WAIM International Joint Conference on Web and Big Data (WAIM)	2016
• Conference on Knowledge Science, Engineering and Management (KSEM)	2015-2016

Journal Reviewer

• IEEE Transactions on Knowledge and Data Engineering (IEEE TKDE)	2019-2021
• ACM Transactions on Knowledge Discovery from Data (ACM TKDD)	2018-2021
• ACM Transactions on Information Systems (ACM TOIS)	2020-2021
• ACM Computing Surveys (ACM CSUR)	2021
• Machine Learning	2020
• Journal of Computer Science and Technology (JCST)	2020
• ISPRS International Journal of Geo-Information (IJGI)	2020
• Electronics and Telecommunications Research Institute (ETRI)	2019-2020
• IEEE Access	2019-2020
• IEEE Intelligent Systems	2019
• Journal of Big Data	2019
• Sustainability	2021
• Information Processing and Management	2021

Volunteer

• AAAI Conference on Artificial Intelligence (AAAI)	2021
• ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)	2018-2020
• ACM Recommender Systems (RecSys)	2018
• Chinese Conference on Complex Networks (CCCN)	2011

**ACADEMIC
HONORS
& AWARDS****Assistant Professor (tenure-track) at CityU**

• ICDM 2021 Best-ranked Papers	2021
• CCF-Tencent Open Fund (PI)	2021

Doctor of Philosophy (Ph.D.) at MSU

• Global Top 100 Chinese New Stars in Artificial Intelligence	2021
• WWW 2021 Student Scholarship Award	2021
• AAAI 2021 Student Travel Award	2021
• MSU Dissertation Completion Fellowship (PI)	2021
• CIKM 2020 Student Travel Award	2020
• KDD 2020 Student Travel Award	2020
• KDD 2019 Student Travel Award	2019
• Bytedance Research Award (PI: Dr. Jiliang Tang, based solely on my research)	2018
• RecSys 2018 Student Travel Award	2018
• KDD 2018 Student Travel Award	2018
• Criteo Research Award (PI: Dr. Jiliang Tang, based solely on my research)	2018
• SDM 2018 Student Travel Award	2018
• CIKM 2017 Student Travel Award	2017

Master of Science (M.S.) at USTC

• Outstanding Master's Thesis Award (Top 15 in Anhui Province)	2018
• Outstanding Graduate Award of USTC	2017
• National Scholarship for Graduate Students of China (Highest National Scholarship)	2017
• Graduate Student First-class Academic Scholarship	2016
• Graduate Student First-class Academic Scholarship	2015
• Graduate Student First-class Academic Scholarship	2014

Bachelor of Engineering (B.Eng.) at UESTC

• Outstanding Graduation Thesis (1% in university, 1/205 in department)	2014
• Outstanding Graduate Award of UESTC	2014
• Ginkgo Innovation and Entrepreneurship Fund (PI, outstanding completed project)	2013
• First Prize of China Contemporary Undergraduate Mathematical Contest in Modeling (Sichuan)	2012
• First Prize of Mathematical Contest in Modeling of UESTC (3/200, only Freshman Team)	2012
• Ginkgo Innovation and Entrepreneurship Fund (Co-I, outstanding completed project)	2012
• Futong Scholarship (3/600)	2011

BIOGRAPHY

Dr. Xiangyu Zhao is an assistant professor of the school of data science at City University of Hong Kong (CityU). Prior to CityU, he completed his PhD (2021) at MSU, MS (2017) at USTC and BEng (2014) at UESTC. His current research interests include data mining and machine learning, especially (1) Information Retrieval and its applications in Personalization, Recommender System, Online Advertising and Search Engine; (2) Urban Computing and Spatio-Temporal Data Analysis; (3) Reinforcement Learning, AutoML, and Multimodal ML; and (4) AI for Social Computing, Finance, Education, Ecosystem, and Healthcare. He has published more than 20 papers in top conferences (e.g., KDD, WWW, AAAI, SIGIR, ICDE, CIKM, ICDM, WSDM, RecSys) and journals (e.g., SIGKDD, SIGWeb, EPL, APS). His research received ICDM'21 Best-ranked Papers, Global Top 100 Chinese New Stars in Artificial Intelligence, CCF-Tencent Open Fund, Criteo Research Award, Bytedance Research Award and MSU Dissertation Fellowship. He serves as top data science conference (senior) program committee members and session chairs (e.g., KDD, AAAI, IJCAI, ICML, ICLR, CIKM), and journal reviewers (e.g., TKDE, TKDD, TOIS, CSUR). He serves as the organizers of DRL4KDD@KDD'19, DRL4IR@SIGIR'20, 2nd DRL4KD@WWW'21, 2nd DRL4IR@SIGIR'21, and a lead tutor at WWW'21 and IJCAI'21. He also serves as the founding academic committee members of MLNLP, the largest AI community in China with 800,000 members/followers. The models and algorithms from his research have been launched in the online system of many companies.