Shuai Li (李帅)

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Work Experiences

The University of Hong Kong, School of Computing and Data Science

Associate Professor 2026.11-now

Shanghai Jiao Tong University, School of AI & John Hopcroft Center

Tenured Associate Professor 2025.08-2026.10

Tenure-track Associate Professor 2023.01-2025.07

Assistant Professor 2019.09-2022.12

Deputy Director in Undergraduate Teaching & Director Assistant 2022.01-2026.10

Teaching: (Undergraduate courses) with A-level rating

Machine Learning/Artificial Intelligence/Reinforcement Learning/Combinatorics

Shanghai Innovative Institute

Adjunct Professor 2025.09-now

DeepMind Research Intern (with Prof. Csaba Szepesvari and Dr. Tor Lattimore) 2018.04-2018.08

Tencent AI Lab Research Intern (with Prof. Tong Zhang) 2018.10-2019.04

Adobe Research Intern (with Principal Research Scientist Dr. Branislav Kveton) 2017.05-2017.10

Education

2019 The Chinese University of Hong Kong (PhD in Computer Science & Engineering)
Supervisor: Prof. Kwong-Sak Leung and Prof. Shengyu Zhang

2015 University of Chinese Academy of Sciences (Master's Degree in Math)
Institute of Mathematics, Supervisor: Prof. Liming Ge

2011 Zhejiang University (Bachelor's Degree in Math)
Chu Kochen Honors College (GPA: 3.92/4.00)

Professional Services

Action Editor for Transactions of Machine Learning Research.

Senior Area Chair for ICML, NeurIPS, AAMAS.

Area Chair for ICLR, ACL, IJCAI, UAI, AISTATS, WWW, etc.

Journal Reviewer for JMLR, TPAMI, TIT, TKDD, TON, TNNLS, TCS, etc.

Conference Reviewer for COLT, AAAI, ALT, KDD, ICDM, MM, CVPR, etc.

Outstanding Reviewer for ICLR-2023, UAI-2022, and NeurIPS-2021.

Awards

2026 Best Paper Runner-up Award of KDD AI4Science Track

2025 Shanghai Leading Talent Program of Eastern Talent Plan (Elite Project) 上海东方英才计划拔尖项目
AAAI-IAAI Deployed Application Award
Advisor of Outstanding PhD Dissertation for CCF - Multi-agent Systems
Outstanding Poster Award (Second Prize), International Conference on General AI

2024 Shanghai Xuhui Guangqi Talent

2023 Huawei Spark Award
Tencent Excellent Advisor
Bronze Medal for Parallel Track SAT in SAT Competition

2020 Shanghai Sailing Talents

2018 Google PhD Fellowship

Reaching out award, Hong Kong SAR Government Scholarship

Research Interests

- Multi-armed Bandits
  - Structure: Graph/Clustering/Ranking/Combinatorial/Conversational
  - Multi-players: Bandit Learning in Matching Markets, Fairness, Incentive
  - Robustness: Best-of-both-worlds, Corruption and Attack
- Reinforcement Learning
  - Convergence: MDP with Function Approximation, Best-of-both-worlds, Extensive Games
  - Offline Pretraining Methods and Offline-to-online Adaptation
  - Improve reasoning of Large Language Model
- Theory Foundation for LLMs
  - Diffusion Model: Sampling Complexity and Training Dynamics
  - Transformer & Mamba: In-context Learning Analysis
- Math Agent
  - Solve open math problems (Combinatorics, Encoding, Theory Proofs)

Tutorials & Keynote Talks

- 11/2025: Shuai Li and Zilong Wang. Tutorial of “Bandit Learning in Matching Markets” at DAI 2025.
- 08/2025: Shuai Li and Zilong Wang. Tutorial of “Bandit Learning in Matching Markets” at IJCAI 2025.
- 05/2025: Shuai Li and Canzhe Zhao. Tutorial of “A Tutorial of Theoretical Foundations for Markov Games” at AAMAS 2025.
- 05/2024: Shuai Li and Fang Kong. Tutorial of "Bandit Learning in Mechanism Design: Matching Markets and Beyond" at AAMAS 2024.
- 07/2022: Invited talk of "Simultaneously Learning Stochastic and Adversarial Bandits with General Graph Feedback" on the CCF NCTCS Annual.
- 07/2021: Keynote talk of "Online Learning to Rank with Click Models: An Overview" in the 2nd Workshop on Deep Reinforcement Learning for Information Retrieval at SIGIR.

5 Selected Works

1. Fang Kong, **Shuai Li**[#], *Player-optimal Stable Regret for Bandit Learning in Matching Markets*, ACM-SIAM Symposium on Discrete Algorithms (SODA), 2023.
2. Fang Kong, Canzhe Zhao, and **Shuai Li**[#], *Best-of-three-worlds Analysis for Linear Bandits with Follow-the-regularized-leader Algorithm*, Proceedings of Thirty Sixth Conference on Learning Theory (COLT), 2023.
3. Canzhe Zhao, Yutian Cheng, Jing Dong, Baoxiang Wang, **Shuai Li**[#], *Learning Imperfect Information Extensive-form Games with Last-iterate Convergence under Bandit Feedback*, The 42nd International Conference on Machine Learning (ICML), 2025.
4. Zilong Wang, Zhiyao Zhang, **Shuai Li**[#], *Optimal Algorithm for Max-Min Fair Bandit*, The 42nd International Conference on Machine Learning (ICML), 2025.
5. Ruofeng Yang, Yongcan Li, **Shuai Li**[#], *Auto-claude-code-research-in-sleep (ARIS)*, https://github.com/wanshuiyin/Auto-claude-code-research-in-sleep, Github 18k Star, 2026.

Graduated Students under Supervision

PhD students:

- Canzhe Zhao (2021.9-2026.3), Postdoc at NUS.
- Fang Kong (2020.9-2024.6), Assistant Professor at Southern University of Science and Technology.

Master students:

- Xu Liu (2022.9-2025.3), Algorithm Engineer at Didi.
- Zhihui Xie (2021.9-2024.3), PhD student at HKU with Chancellor's Scholarship.
- Qizhi Li (2020.9-2023.3), Algorithm Engineer at TikTok/Baidu.

Other Publications

Statistics: 2 SODA/COLT+42 ICML/NeurIPS/ICLR+23 AAAI/IJCAI/UAI/AISTATS+7 KDD/WWW

*Equal contribution #Corresponding author

1. Zhijie Wang, Bo Jiang, **Shuai Li#**, *Positional Encoding and Prompt-Order Sensitivity in In-Context Learning*, NeurIPS, 2026.
2. Ruofeng Yang, Jingyuan Liu, **Shuai Li#**, *When Does Structure Help? Statistical Tradeoffs for Structured Reverse Processes in Diffusion Large Language Models*, NeurIPS, 2026.
3. Yiyu Qiu, Ruofeng Yang, Tong Yu, **Shuai Li#**, *Understanding Time-Dependent Stability Boundary in Guidance through Three-regime Dynamics*, NeurIPS, 2026.
4. Yutian Cheng, Canzhe Zhao, Jingye Zhao, **Shuai Li#**, *No Free Best-of-Both-Worlds Learning in Repeated Bilateral Trade*, NeurIPS, 2026.
5. Hanbin Zhou, Canzhe Zhao, **Shuai Li#**, *Improved Sample Complexity for Markov Games via Variance-Aware Bandit Learning*, NeurIPS, 2026.
6. Haomin Bai, Dingzhi Yu, **Shuai Li**, Haipeng Luo, Lijun Zhang, *Group Distributionally Robust Optimization with Flexible Sample Queries*, NeurIPS, 2026.
7. Haoran Yu*, Zilong Wang*, Kang Pan, Xiao Zhang, Erli Meng, **Shuai Li#**, *A Systematic Review of Meta-Reasoning for Large Reasoning Models*, AACL-IJCNLP, 2026.
8. Zilong Wang, Kang Pan, Xiao Zhang, Erli Meng, **Shuai Li#**, *BORA-BUDGET: Learning When to Think Under a Token Budget*, EMNLP, 2026.
9. Zilong Wang, Penglei Zhao, Fang Kong, Yong Wang, **Shuai Li#**, *Anytime-Valid Multi-Objective Online Experimentation with Contrast Certificates*, CIKM, 2026.
10. Jingfeng Zhong, Zhengxiang Liu, Zhijie Wang, **Shuai Li#**, *FISolver: Data-Driven Discovery of First Integrals via Backward Generation and Guided Reinforcement Learning*, CIKM (Oral), 2026.
11. Yutian Cheng, Xiaojian Ma, xianhao wang, Min Yang, Su Rongpeng, Hangxin Liu, Xi Chen, **Shuai Li**, Qing Li, *AdaReP:Adaptive Re-Planning under Model Mismatch for Neural World-Model Predictive Control*, ICANN (Oral), 2026.
12. Zilong Wang, Yuhao Zhang, Zhewei Wei, **Shuai Li#**, *Bandit Learning for Online Scheduling with Immediate Decision*, UAI, 2026.
13. Yutian Cheng, Canzhe Zhao, **Shuai Li#**, *Policy Optimization for Adversarial Linear Mixture MDPs with Unknown Transitions and Bandit Feedback*, UAI, 2026.
14. Ruofeng Yang, Yongcan Li, Bo Jiang, Cheng Chen, **Shuai Li#**, *Evaluating the Role of Great Pre-trained Diffusion Models in Few-shot Phase: Warm-up and Acceleration*, UAI, 2026.
15. Haonan Qi, Bin Lu, Yimian Hu, Ze Zhao, Meng Jin, Lixin Qu, **Shuai Li**, Shizhen Zhao, Lei Zhou, Xiaoying Gan, Xinbing Wang, Chenghu Zhou, *From Surface to Depth: Diagnosing Ocean Vertical Velocity with 3D Frequency Operator*, KDD AI for Science Track (Oral), 2026.
16. Letian Yang, Xu Liu, Yiqiang Lu, Jian Liu, Weiqiang Wang, **Shuai Li#**, *ROAD: Adaptive Data Mixing for Offline-to-Online Reinforcement Learning via Bi-Level Optimization*, IJCAI, 2026.
17. Zuhao zhang, Chengyue Yu, Yuante Li, Chenyi Zhuang, Linjian Mo, **Shuai Li**, *MiniAppBench: Evaluating the Shift from Text to Interactive HTML Responses in LLM-Powered Assistants*, ICML (Spotlight), 2026.
18. Baoxiang He, Valentio Iverson, **Shuai Li**, Cheng Chen, Bo Jiang, *The Accumulation of Score Estimation Error in Diffusion Models*, ICML, 2026.
19. Junwei Liao, **Shuai Li**, Muning Wen, Jun Wang, Weinan Zhang, *Position: Agentic AI Is a Foreseeable Pathway to AGI*, ICML (position track), 2026.

20. Fang Kong, Xiaoxi Zhang, Xiao Huang, Lijun Zhang, **Shuai Li#**, *Bandit learning in matching markets with relative feedback*, Theoretical Computer Science (TCS) [J], 2026.
21. Xiaojin Zhang, Weiwen Liu, Shuai Li, Shengyu Zhang, *Contextual combinatorial conservative bandits*, Theoretical Computer Science (TCS) [J], 2026.
22. Ruofeng Yang*, Yongcan Li*, Bo Jiang, Cheng Chen, **Shuai Li#**, *Multi-Subspace Multi-Modal Modeling for Diffusion Models: Estimation, Convergence and Mixture of Experts*, The Fourteenth International Conference on Learning Representations (ICLR), 2026.
23. Jingqi Fan, Canzhe Zhao, **Shuai Li**, and Siwei Wang, *Decentralized Asynchronous Multi-player Bandits*, AAMAS (extended abstract), 2026.
24. Haitong Ma, Haoran Yu, Haobo Fu, **Shuai Li#**, *Learning Preferences without Interaction for Cooperative AI: A Hybrid Offline-Online Approach*, the Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS), 2025.
25. Zhihui Xie, Xu Liu, **Shuai Li#**, *Multi-armed Bandit Algorithms for the Boolean Satisfiability Problem: A Survey*, the 18th International Symposium on Combinatorial Search (SoCS), 2025.
26. Canzhe Zhao, Shuze Chen, Weiming Liu, Haobo Fu, Qiang Fu, **Shuai Li#**, *Towards Provably Efficient Learning of Imperfect Information Extensive-Form Games with Linear Function Approximation*, the Conference on Uncertainty in Artificial Intelligence (UAI), 2025.
27. Xiao Huang, Xu Liu, Enze Zhang, Tong Yu, **Shuai Li#**, *Offline-to-Online Reinforcement Learning with Classifier-Free Diffusion Generation*, The 42nd International Conference on Machine Learning (ICML), 2025.
28. Ruofeng Yang, Bo Jiang, Cheng Chen, **Shuai Li#**, *Improved Discretization Complexity Analysis of Consistency Models: Variance Exploding Forward Process and Decay Discretization Scheme*, The 42nd International Conference on Machine Learning (ICML), 2025.
29. **Shuai Li#**, Zilong Wang, Fang Kong, *A Survey on Bandit Learning in Matching Markets*, International Joint Conferences on Artificial Intelligence (IJCAI, Survey Track), 2025.
30. Jingqi Fan, Zilong Wang, **Shuai Li#**, Linghe Kong, *Multi-player Multi-armed Bandits with Delayed Feedback*, International Joint Conferences on Artificial Intelligence (IJCAI), 2025.
31. Dongxie Wen, Xiao Zhang, Zhewei Wei, Chenping Hou, **Shuai Li**, Weinan Zhang, *Fast Second-Order Online Kernel Learning through Incremental Matrix Sketching and Decomposition*, International Joint Conferences on Artificial Intelligence (IJCAI), 2025.
32. Fang Kong, Jingqi Tang, Mingzhu Li, Pinyan Lu, John C.S. Lui, and **Shuai Li#**, *Bandit Learning in Matching Markets with Indifference*, The Thirteenth International Conference on Learning Representations (ICLR), 2025.
33. Xu Liu, Haobo Fu, Stefano V Albrecht, Qiang Fu, and **Shuai Li#**, *Online-to-Offline RL for Agent Alignment*, The Thirteenth International Conference on Learning Representations (ICLR), 2025.
34. Ruofeng Yang, Bo Jiang, and **Shuai Li#**, *The Polynomial Iteration Complexity for Variance Exploding Diffusion Models: Elucidating SDE and ODE Samplers*, Proceedings of the 28th International Conference on Artificial Intelligence and Statistics (AISTATS), 2025.
35. Songwen Hu, Ryan A. Rossi, Tong Yu, Junda Wu, Handong Zhao, Sungchul Kim, and **Shuai Li#**, *Interactive Visualization Recommendation with Hier-SUCB*, Proceedings of the ACM on Web Conference (WWW, oral), 2025.
36. Xu Liu, Tong Yu, and **Shuai Li#**, *Adaptive Offline Data Replay in Offline-to-Online Reinforcement Learning*, Proceedings of the 24th International Conference on Autonomous Agents and Multiagent Systems (AAMAS, extended abstract), 2025.
37. Canzhe Zhao, XiangCheng Zhang, Baoxiang Wang, and **Shuai Li#**, *Logarithmic Regret for Linear Markov Decision Processes with Adversarial Corruptions*, Proceedings of the AAAI Conference on Artificial Intelligence (AAAI, oral), 2025.

38. Xu Liu, Yiqiang Lu, Jian liu, Tianyi Zhang, Weiqiang Wang, Qian Liu, and **Shuai Li#**, *Adaptive Merchant-Centric Risk Control via Unbiased Decision-Making and Dynamic Optimization in E-Commerce*, Proceedings of the AAAI Conference on Artificial Intelligence (AAAI, IAAI Technical Track on Deployed Highly Innovative Applications of AI), 2025.
39. Yu Xia, Rui Wang, Xu Liu, Mingyan Li, Tong Yu, Xiang Chen, Julian McAuley, and **Shuai Li#**, *Beyond Chain-of-Thought: A Survey of Chain-of-X Paradigms for LLMs*, Proceedings of the 31st International Conference on Computational Linguistics (COLING), 2025.
40. Fang Kong, Zilong Wang, and **Shuai Li#**, *Improved Analysis for Bandit Learning in Matching Markets*, Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS), 2024.
41. Ruofeng Yang, Zhijie Wang, Bo Jiang, and **Shuai Li#**, *The Convergence of Variance Exploding Diffusion Models under the Manifold Hypothesis*, Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS), 2024.
42. Ruofeng Yang, Bo Jiang, Cheng Chen, Ruinan Jin, Baoxiang Wang, and **Shuai Li#**, *Few-Shot Diffusion Models Escape the Curse of Dimensionality*, Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS), 2024.
43. **Shuai Li**, Zhao Song, Yu Xia, Tong Yu, Tianyi Zhou, *The Closeness of In-Context Learning and Weight Shifting for Softmax Regression*, Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS), 2024.
44. Zhihui Xie, Jizhou Guo, Tong Yu, and **Shuai Li#**, *Calibrating Reasoning in Language Models with Internal Consistency*, Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS), 2024.
45. Yao Tang, Zhihui Xie, Zichuan Lin, Deheng Ye, and **Shuai Li#**, *Learning Versatile Skills with Curriculum Masking*, Proceedings of the 38th Conference on Neural Information Processing Systems (NeurIPS), 2024.
46. Fang Kong, Penglei Zhao, Shichao Han, Yong Wang, and **Shuai Li#**, *Sequential Optimum Test with Multi-armed Bandits for Online Experimentation*, Proceedings of the 33rd ACM International Conference on Information and Knowledge Management (CIKM, Applied Track), 2024.
47. Zilong Wang and **Shuai Li#**, *Optimal Analysis for Bandit Learning in Matching Markets with Serial Dictatorship*, Theoretical Computer Science (TCS) [J], 2024.
48. Zhijie Wang, Bo Jiang, and **Shuai Li#**, *In-Context Learning on Function Classes Unveiled for Transformers*, Proceedings of the 41st International Conference on Machine Learning (ICML), 2024.
49. Xutong Liu, Siwei Wang, Jinhang Zuo, Han Zhong, Xuchuang Wang, Zhiyong Wang, **Shuai Li#**, Mohammad Hajiesmaili, John C.S. Lui, and Wei Chen#, *Combinatorial Multivariant Multi-Armed Bandits with Applications to Episodic Reinforcement Learning and Beyond*, Proceedings of the 41st International Conference on Machine Learning (ICML), 2024.
50. Jize Xie, Xubin Zheng, Jianlong Yan, Qizhi Li, Nana Jin, Shuojia Wang, Pengfei Zhao, **Shuai Li**, Wanfu Ding, Lixin Cheng, Qingshan Geng, *Deep learning model to discriminate diverse infection types based on pairwise analysis of host gene expression*, iScience [J], 2024.
51. Yu Xia, Tong Yu, Zhankui He, Handong Zhao, Julian McAuley, and **Shuai Li**, *Aligning as Debiasing: Causality-Aware Alignment via Reinforcement Learning with Interventional Feedback*, Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2024.
52. Yu Xia*, Xu Liu*, Tong Yu, Sungchul Kim, Ryan A. Rossi, Anup Rao, Tung Mai, and **Shuai Li**, *Hallucination Diversity-Aware Active Learning for Text Summarization*, Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL), 2024.
53. Yu Xia*, Fang Kong*, Tong Yu, Liya Guo, Ryan A. Rossi, Sungchul Kim, and **Shuai Li#**, *Which LLM to Play? Convergence-Aware Online Model Selection with Time-Increasing Bandits*, WWW 2024.

54. Ruinan Jin, **Shuai Li**, and Baoxiang Wang, *On Stationary Point Convergence of PPO-Clip*, the Twelfth International Conference on Learning Representations (ICLR), 2024.
55. Zhehao Zhang, Tong Yu, Handong Zhao, Kaige Xie, Lina Yao, **Shuai Li**, *Exploring Soft Prompt Initialization Strategy for Few-shot Continual Text Classification*, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2024.
56. Fang Kong and **Shuai Li#**, *Improved Bandits in Many-to-one Matching Markets with Incentive Compatibility*, The 38th AAAI Conference on Artificial Intelligence (AAAI), 2024.
57. Fang Kong, Xiangcheng Zhang, Baoxiang Wang, and **Shuai Li#**, *Improved Regret Bounds for Linear Adversarial MDPs via Linear Optimization*, Transactions on Machine Learning Research (TMLR) [J], 2024.
58. Yu Xia, Zhihui Xie, Tong Yu, and **Shuai Li#**, *Towards Joint Utilization of Absolute and Relative Bandit Feedback for Conversational Recommendation*, User Modeling and User-Adapted Interaction (UMUAI) [J], 2024.
59. Xu Liu, Tong Yu, Kaige Xie, Junda Wu, and **Shuai Li#**, *Interact with the Explanations: Causal Debiased Explainable Recommendation System*, the 17th ACM International Conference on Web Search and Data Mining (WSDM), 2024.
60. Canzhe Zhao, Ruofeng Yang, Baoxiang Wang, Xuezhou Zhang, and **Shuai Li#**, *Learning Adversarial Low-rank Markov Decision Processes with Unknown Transition and Full-information Feedback*, 37th Conference on Neural Information Processing Systems (NeurIPS), 2023.
61. Jinhang Zuo, Zhiyao Zhang, Zhiyong Wang, **Shuai Li#**, Mohammad Hajiesmaili, and Adam Wierman, *Adversarial Attacks on Online Learning to Rank with Click Feedback*, 37th Conference on Neural Information Processing Systems (NeurIPS), 2023.
62. Zhiyong Wang, Jize Xie, Tong Yu, **Shuai Li#**, and John C.S. Lui, *Online Corrupted User Detection and Regret Minimization*, 37th Conference on Neural Information Processing Systems (NeurIPS), 2023.
63. Zhiyong Wang, Jize Xie, Xutong Liu, **Shuai Li#**, and John C.S. Lui, *Online Clustering of Bandits with Misspecified User Models*, 37th Conference on Neural Information Processing Systems (NeurIPS), 2023.
64. Junda Wu, Tong Yu, Rui Wang, Zhao Song, Ruiyi Zhang, Handong Zhao, Chaochao Lu, **Shuai Li#**, and Ricardo Henao, *InfoPrompt: Information-Theoretic Soft Prompt Tuning for Natural Language Understanding*, 37th Conference on Neural Information Processing Systems (NeurIPS), 2023.
65. Yu Xia, Junda Wu, Tong Yu#, Sungchul Kim, Ryan A. Rossi, and **Shuai Li**, *User-Regulation Deconfounded Conversational Recommender System with Bandit Feedback*, Proceedings of the 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD Research Track), 2023.
66. Zhihui Xie, Zichuan Lin, Deheng Ye, Qiang Fu, Yang Wei, and **Shuai Li#**, *Future-conditioned Unsupervised Pretraining for Decision Transformer*, Proceedings of the 40th International Conference on Machine Learning (ICML), 2023.
67. Canzhe Zhao, Yanjie Ze, Jing Dong, Baoxiang Wang, **Shuai Li#**, *DPMAC: Differentially Private Communication for Cooperative Multi-Agent Reinforcement Learning*, Proceedings of the Thirty-Second International Joint Conference on Artificial Intelligence (IJCAI), 2023.
68. Qizhi Li*, Xubin Zheng*, Jize Xie*, Ran Wang, Mengyao Li, Man-Hon Wong, Kwong-Sak Leung, **Shuai Li**, Qingshan Geng, Lixin Cheng, *bvnGPS: a generalizable diagnostic model for acute bacterial and viral infection using integrative host transcriptomics and pretrained neural networks*, Bioinformatics [J], 2023.
69. Canzhe Zhao, Ruofeng Yang, Baoxiang Wang, **Shuai Li#**, *Learning Adversarial Linear Mixture Markov Decision Processes with Bandit Feedback and Unknown Transition*, The Eleventh International Conference on Learning Representations (ICLR), 2023.
70. Yichi Zhou, Fang Kong, **Shuai Li**, *Stochastic No-Regret Learning for General Games with Variance Reduction*, The Eleventh International Conference on Learning Representations (ICLR), 2023.
71. Qizhi Li*, Canzhe Zhao*, Tong Yu, Junda Wu, **Shuai Li#**, *Clustering of Conversational Bandits with Posterior Sampling for User Preference Learning and Elicitation*, User Modeling and User-Adapted

Interaction (UMUAI) [J], 2023.

72. Fang Kong, Jize Xie, Baoxiang Wang, Tao Yao, **Shuai Li#**, *Online Influence Maximization under Decreasing Cascade Model*, Proceedings of the 2023 International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2023.
73. Rui Zhao*, Xu Liu*, Yizheng Zhang*, Minghao Li, Cheng Zhou, **Shuai Li** and Lei Han#, *CraftEnv: A Flexible Collective Robotic Construction Environment for Multi-Agent Reinforcement Learning*, Proceedings of the 2023 International Conference on Autonomous Agents and Multiagent Systems (AAMAS), 2023.
74. Ruofeng Yang, Xiangyuan Li, Bo Jiang, **Shuai Li#**, *Understanding Representation Learnability of Nonlinear Self-Supervised Learning*, Proceedings of the AAAI Conference on Artificial Intelligence (AAAI, Oral), 2023.
75. Zhiyong Wang, Xutong Liu, **Shuai Li#**, John C.S. Lui, *Efficient Explorative Key-term Selection Strategies for Conversational Contextual Bandits*, Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2023.
76. Junda Wu, Rui Wang, Handong Zhao, Ruiyi Zhang, Chaochao Lu, **Shuai Li**, Ricardo Henao, *Few-Shot Composition Learning for Image Retrieval with Prompt Tuning*, Proceedings of the AAAI Conference on Artificial Intelligence (AAAI), 2023.
77. Weiwen Liu*, Yunjia Xi*, Jiarui Qin, Xinyi Dai, Ruiming Tang#, **Shuai Li**, Weinan Zhang and Rui Zhang#, *Personalized Diversification for Neural Re-ranking in Recommendation*, IEEE 39th International Conference on Data Engineering (ICDE), 2023.
78. Canzhe Zhao, Yanjie Ze, Jing Dong, Baoxiang Wang, **Shuai Li#**, *Differentially Private Temporal Difference Learning with Stochastic Nonconvex-Strongly-Concave Optimization*, Proceedings of the 16th ACM International Conference on Web Search and Data Mining (WSDM), 2023.
79. Zhihui Xie, Handong Zhao, Tong Yu, **Shuai Li#**, *Discovering Low-rank Subspaces for Language-agnostic Multilingual Representations*, Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP), 2022.
80. Junda Wu, Rui Wang, Tong Yu#, Ruiyi Zhang, Handong Zhao, **Shuai Li**, Ricardo Henao, Ani Nenkova, *Context-aware Information-theoretic Causal De-biasing for Interactive Sequence Labeling*, Findings of Empirical Methods in Natural Language Processing (EMNLP), 2022.
81. Zilong Wang, Liya Guo, Junming Yin and **Shuai Li#**, *Bandit Learning in Many-to-One Matching Markets*, Proceedings of the 31st ACM International Conference on Information & Knowledge Management (CIKM), 2022.
82. Jinhang Zuo, Songwen Hu, Tong Yu, **Shuai Li#**, Handong Zhao and Carlee Joe-Wong, *Hierarchical Conversational Preference Elicitation with Bandit Feedback*, Proceedings of the 31st ACM International Conference on Information & Knowledge Management (CIKM), 2022.
83. Yong Zhuang, Tong Yu, Junda Wu, Shiqu Wu, **Shuai Li#**, *Spatial-Temporal Aligned Multi-Agent Learning for Visual Dialog Systems*, The 30th ACM International Conference on Multimedia (MM), 2022.
84. Xutong Liu, Haoru Zhao, Tong Yu, **Shuai Li#**, John C.S. Lui, *Federated Online Clustering of Bandits*, The 38th Conference on Uncertainty in Artificial Intelligence (UAI), 2022.
85. Fang Kong, Junming Yin, **Shuai Li#**, *Thompson Sampling for Bandit Learning in Matching Markets*, The 31st International Joint Conference on Artificial Intelligence (IJCAI), 2022.
86. Fang Kong, Yichi Zhou, **Shuai Li#**, *Simultaneously Learning Stochastic and Adversarial Bandits with General Graph Feedback*, The 39th International Conference on Machine Learning (ICML, Spotlight), 2022.
87. Junda Wu*, Zhihui Xie*, Tong Yu, Handong Zhao, Ruiyi Zhang and **Shuai Li#**, *Dynamics-Aware Adaptation for Reinforcement Learning Based Cross-Domain Interactive Recommendation*, The 45th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2022.
88. Kun Wang, Jing Dong, Baoxiang Wang, **Shuai Li**, *Cascading Bandit under Differential Privacy*, IEEE

International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2022.

89. Anirban Santara, Gaurav Aggarwal, **Shuai Li**, Claudio Gentile, *Learning to Plan Variable Length Sequences of Actions with a Cascading Bandit Click Model of User Feedback*, The 25th International Conference on Artificial Intelligence and Statistics (AISTATS), 2022.
90. Canzhe Zhao, Tong Yu, Zhihui Xie, **Shuai Li**[#], *Knowledge-aware Conversational Preference Elicitation with Bandit Feedback*, The Web Conference (WWW), 2022.
91. Cheng Chen, Canzhe Zhao, **Shuai Li**[#], *Simultaneously Learning Stochastic and Adversarial Bandits under the Position-based Model*, The 36th AAAI Conference on Artificial Intelligence (AAAI), 2022.
92. Jing Dong, Ke Li, **Shuai Li**, Baoxiang Wang[#], *Combinatorial Bandits under Strategic Manipulations*, The 15th ACM International Conference on Web Search and Data Mining (WSDM), 2022.
93. Fang Kong, Yueran Yang, Wei Chen, **Shuai Li**[#], *The Hardness Analysis of Thompson Sampling for Combinatorial Semi-bandits with Greedy Oracle*, Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS), 2021.
94. Houshuang Chen, Zengfeng Huang, **Shuai Li**, Chihao Zhang (alphabetical order), *Understanding Bandits with Graph Feedback*, Thirty-fifth Conference on Neural Information Processing Systems (NeurIPS), 2021.
95. Fang Kong, Yueran Yang, Wei Chen, **Shuai Li**[#], *Combinatorial online learning based on optimizing feedbacks* (in Chinese), Big Data Research, 2021.
96. Yueran Yang*, Yu Zhang*, **Shuai Li**, Xubin Zheng, Man Hon Wong, Kwong-Sak Leung, Lixin Cheng, *A robust and generalizable immune-related signature for sepsis diagnostics*, IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB), 2021.
97. Junda Wu*, Canzhe Zhao*, Tong Yu, Jingyang Li, **Shuai Li**[#], *Clustering of Conversational Bandits for Coarse-to-Fine Grained Preference Elicitation*, Proceedings of the 30th ACM International Conference on Information & Knowledge Management (CIKM), 2021.
98. Junda Wu, Tong Yu, **Shuai Li**[#], *Deconfounded and Explainable Interactive Vision-Language Retrieval of Complex Scenes*, Proceedings of the 29th ACM International Conference on Multimedia (MM), 2021.
99. Zhihui Xie, Tong Yu, Canzhe Zhao, **Shuai Li**[#], *Comparison-based Conversational Recommender System with Relative Bandit Feedback*, The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2021.
100. Jianghao Lin, Weiwen Liu, Xinyi Dai, Weinan Zhang, **Shuai Li**, Ruiming Tang, Xiuqiang He, Jianye Hao and Yong Yu, *A Graph-Enhanced Click Model for Web Search*, The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2021.
101. Xinyi Dai, Jianghao Lin, Weinan Zhang, **Shuai Li**, Weiwen Liu, Ruiming Tang, Xiuqiang He, Jianye Hao, Jun Wang and Yong Yu, *A Generative Adversarial Click Model for Information Retrieval*, The Web Conference (WWW), 2021.
102. **Shuai Li**[#], Fang Kong, Kejie Tang, Qizhi Li, Wei Chen, *Online influence maximization under linear threshold model*, Thirty-fourth Conference on Neural Information Processing Systems (NeurIPS), 2020.
103. Fang Kong, Qizhi Li, **Shuai Li**[#], *A Survey on Online Influence Maximization* (in Chinese), Computer Science, 2020.
104. Baoxiang Wang, **Shuai Li**, Jiajin Li, Siu On Chan, *The Gambler's Problem and Beyond*, the International Conference on Learning Representations (ICLR), 2020.
105. **Shuai Li**, Wei Chen, Zheng Wen, Kwong-Sak Leung, *Stochastic Online Learning with Probabilistic Feedback Graph*, the 34th AAAI Conference on Artificial Intelligence (AAAI), 2020.
106. Ran Wang, **Shuai Li**, Lixin Cheng, Man-Hon Wong, Kwong-Sak Leung, *Predicting Associations among Drugs, Targets and Diseases by Tensor Decomposition for Drug Repositioning*, BMC Bioinformatics, 2019.
107. Pengfei Liu, Hongjian Li, **Shuai Li**, Kwong-Sak Leung, *Improving Prediction of Phenotypic Drug Response*

on Cancer Cell Lines Using Deep Convolutional Network, BMC Bioinformatics, 2019.

108. **Shuai Li**, Wei Chen, S Li, Kwong-Sak Leung, *Improved Algorithm on Clustering of Bandits*, the 28th International Joint Conference on Artificial Intelligence (IJCAI), 2019.
109. **Shuai Li**, Tor Lattimore, Csaba Szepesvari, *Online Learning to Rank with Features*, the 36th International Conference on Machine Learning (ICML), 2019.
110. Tor Lattimore, Branislav Kveton, **Shuai Li**, Csaba Szepesvai, *TopRank: A Practical Algorithm for Online Stochastic Ranking*, the 32nd Conference on Neural Information Processing Systems (NeurIPS), 2018.
111. Ran Wang, **Shuai Li**, Man-Hon Wong, and Kwong-Sak Leung, *Drug-Protein-Disease Association Prediction and Drug Repositioning Based on Tensor Decomposition*, IEEE International Conference on Bioinformatics and Biomedicine (BIBM), 2018.
112. **Shuai Li**, Yasin Abbasi-Yadkori, Branislav Kveton, S. Muthukrishnan, Vishwa Vinay, Zheng Wen, *Offline Evaluation of Ranking Policies with Click Models*, the 24th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD Research Track), 2018.
113. Weiwen Liu, **Shuai Li**, Shengyu Zhang, *Contextual Dependent Click Bandit Algorithm for Web Recommendation*, International Computing and Combinatorics Conference (COCOON), pp. 39-50, Springer, Cham, 2018.
114. **Shuai Li**, Shengyu Zhang, *Online Clustering of Contextual Cascading Bandits*, the 32nd AAAI Conference on Artificial Intelligence (AAAI), 2018.
115. **Shuai Li**, Baoxiang Wang, Shengyu Zhang, Wei Chen, *Contextual Combinatorial Cascading Bandits*, the 33rd International Conference on Machine Learning (ICML), pp. 1245-1253. 2016.
116. Pengfei Liu, **Shuai Li**, Weiying Yi, Kwong-Sak Leung, *A Hybrid Distributed Framework for SNP Selections*, the 22nd International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA), 2016.
117. **Shuai Li**, Xiaoqian Xu, Guojin Wang, *Design for Triangular Rational Bézier Harmonic and Biharmonic Surfaces* (in Chinese), Journal of Zhejiang University (Science Edition), 2012(2):152-158.