Dong Li

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RESEARCH OF INTERESTS

◇ Large Laluage Model ◇ Uncertainty ◇ Domain Generalization ◇ Causal Discovery
◇ Fairness-aware Machine Learning ◇ Computational Biology ◇ Graph Mining

EDUCATION

- **Baylor University** — *2025 - Present*
  Ph.D. in Computer Science — Texas, United States
- **Tianjin University** — *2022 - 2025*
  M.E. in Computer Science — Tianjin, China
- **Tiangong University (Tianjin Polytechnic University)** — *2018 - 2022*
  B.E. in Computer Science — Tianjin, China

PUBLICATIONS   *=EQUAL CONTRIBUTION, C=CONFERENCE, J=JOURNAL, AP=ARXIV PREPRINT, CW=CONFERENCE WORKSHOP

[C] **[ICASSP'26]** Qin Tian, Chen Zhao, Minglai Shao, Wenjun Wang, **Dong Li**. Toward Robust Node-Level Graph OOD Generalization with Semantic Awareness. In Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing, 2026.

[C] **[WWW'26]** Qin Tian, Chen Zhao, Xintao Wu, **Dong Li**, Minglai Shao, Xujiang Zhao, Wenjun Wang. Class-Domain Incremental Learning on Graphs via Disentangled Knowledge Distillation. In Proceedings of the Web Conference, 2026.

[C] **[AAAI'26]** **Dong Li**, Zhengzhang Chen, Xujiang Zhao, Linlin Yu, Zhong Chen, Yi He, Haifeng Chen, Chen Zhao. MARLIN: Multi-Agent Reinforcement Learning for Incremental DAG Discovery. In Proceedings of the AAAI Conference on Artificial Intelligence, 2026.

[C] **[AAAI'26]** Xiaoxu Ma, **Dong Li**, Minglai Shao, Xintao Wu, Chen Zhao. LLM-Enhanced Energy Contrastive Learning for Out-of-Distribution Detection in Text-Attributed Graphs. In Proceedings of the AAAI Conference on Artificial Intelligence, 2026.

[C] **[AAAI'26]** Zhixia He, Chen Zhao, Minglai Shao, Xintao Wu, Xujiang Zhao, **Dong Li**, Qin Tian, Linlin Yu. Out-of-Distribution Detection with Positive and Negative Prompt Supervision Using Large Language Models. In Proceedings of the AAAI Conference on Artificial Intelligence, 2026.

[C] **[NeurIPS'25]** **Dong Li**, Xujiang Zhao, Linlin Yu, Yanchi Liu, Wei Cheng, Zhengzhang Chen, Zhong Chen, Feng Chen, Chen Zhao, Haifeng Chen. SolverLLM: Leveraging Test-Time Scaling for Optimization Problem via LLM-Guided Search. In Proceedings of the 39th Annual Conference on Neural Information Processing Systems, 2025.

[C] **[ACL'25]** Qiwei Zhao*, **Dong Li***, Yanchi Liu, Wei Cheng, Yiyou Sun, Mika Oishi, Takao Osaki, Katsushi Matsuda, Huaxiu Yao, Chen Zhao, Haifeng Chen, Xujiang Zhao. Uncertainty Propagation on LLM Agent. In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics, 2025.

[C] **[IJCAI'25]** Yujie Lin*, **Dong Li***, Minglai Shao, Guihong Wan, Chen Zhao. FADE: Towards Fairness-aware Data Generation for Domain Generalization via Classifier-Guided Score-based Diffusion Models. In Proceedings of the 34th International Joint Conference on Artificial Intelligence, 2025

[C] **[ICASSP'25]** Zhixia He, Chen Zhao, Minglai Shao, Yujie Lin, **Dong Li**, Qin Tian. GDDA: Semantic OOD Detection on Graphs under Covariate Shift via Score-Based Diffusion Model. In Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing, 2025

[C] **[KDD'25]** Qin Tian, Chen Zhao, Minglai Shao, Wenjun Wang, Yujie Lin, **Dong Li**. MLDGG: Meta-Learning for Domain Generalization on Graphs. In Proceedings of the ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 2025.

[C] **[CIKM'24]** **Dong Li**, Chen Zhao, Minglai Shao, Wenjun Wang. Learning Fair Invariant Representations under Covariate and Correlation Shifts Simultaneously. In Proceedings of the 33rd ACM International Conference on Information and Knowledge Management, 2024.

[C] **[IJCAI'24]** Minglai Shao*, **Dong Li***, Chen Zhao*, Xintao Wu, Yujie Lin, Qin Tian. (*Equal contribution). Supervised Algorithmic Fairness in Distribution Shifts: A Survey. In Proceedings of the 33rd International Joint Conference on Artificial Intelligence, 2024.

[C] **[CIKM'23]** **Dong Li**, Wenjun Wang, Minglai Shao, Chen Zhao. Contrastive Representation Learning Based on Multiple Node-centered Subgraphs. In Proceedings of the 32nd ACM International Conference on Information and Knowledge Management, 2023.

[J]	**[TMLR] Dong Li***, Guihong Wan*, Xintao Wu, Xinyu Wu, Xiaohui Chen, Yi He, Zhong Chen, Peter K. Sorger, Chen Zhao. Multi-Modal Foundation Models for Computational Pathology: A Survey. Transactions on Machine Learning Research, 2025.
[J]	**[DDNS]** Xiangning Chen, Caiyun Wang, **Dong Li**, Xuemei Sun. A new early rumor detection model based on bigru neural network. Discrete Dynamics in Nature and Society, 2021.
[AP]	Ninghui Hao, Xinxing Yang, Boshen Yan, **Dong Li**, Junzhou Huang, Xintao Wu, Emily S. Ruiz, Arlene Ruiz de Luzuriaga, Chen Zhao, Guihong Wan. Histopathology-centered Computational Evolution of Spatial Omics: Integration, Mapping, and Foundation Models. ArXiv preprint, 2601.07826
[AP]	Xinyu Wu, Xiaohui Chen, Xintao Wu, **Dong Li**, Zhong Chen, Yi He, Chen Zhao. Explainable Image-Centric Forgery Detection: A Survey. TechRxiv preprint, DOI: 10.36227/techrxiv.176101439.91738583/v1
[AP]	Yumeng Lin*, **Dong Li***, Xintao Wu, Minglai Shao, Xujiang Zhao, Zhong Chen, Chen Zhao. Face4FairShifts: A Large Image Benchmark for Fairness and Robust Learning across Visual Domains. ArXiv preprint, 2509.00658.
[AP]	**Dong Li***, Guihong Wan*, Xintao Wu, Xinyu Wu, Ajit J. Nirmal, Christine G. Lian, Peter K. Sorger, Yevgeniy R. Semenov, Chen Zhao. A Survey on Computational Pathology Foundation Models: Datasets, Adaptation Strategies, and Evaluation Tasks. ArXiv preprint, 2501.15724.
[AP]	Qin Tian, Wenjun Wang, Chen Zhao, Minglai Shao, Wang Zhang, **Dong Li**. Graphs Generalization under Distribution Shifts. ArXiv preprint, 2403.16334.
[CW]	**[NeurIPS'25-W] Dong Li**, Guihong Wan, Xintao Wu, Xinyu Wu, Xiaohui Chen, Yi He, Zhong Chen, Ninghui Hao, Chen Zhao. Multi-Modal Foundation Models for Computational Pathology: A Survey. NeurIPS Workshop on Multi-modal Foundation Models and Large Language Models for Life Sciences, 2025.
[CW]	**[NeurIPS'25-W] Dong Li**, Guihong Wan, Xintao Wu, Xinyu Wu, Yi He, Zhong Chen, Ninghui Hao, Chen Zhao. A Survey on Computational Pathology Foundation Models: Datasets, Adaptation Strategies, and Evaluation Tasks. NeurIPS Workshop on Imageomics: Discovering Biological Knowledge from Images Using AI, 2025.
[CW]	**[KDD'25-W]** Zhixia He, Chen Zhao, Minglai Shao, **Dong Li**, Qin Tian. Multi-Modal Out-of-Distribution Detection with Large Language Models. KDD Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2025.
[CW]	**[KDD'25-W]** Haoliang Wang, **Dong Li**, Chen Zhao. Drift-Aware Proxy Uncertainty Estimation for Large Language Models in Temporal Streams. KDD Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2025.
[CW]	**[KDD'24-W]** Qin Tian, Wenjun Wang, Minglai Shao, Chen Zhao, **Dong Li**. IDGG: Invariant Learning for Out-of-Distribution Generalization on Graphs. KDD Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2024.
[CW]	**[KDD'24-W]** Yujie Lin, **Dong Li**, Chen Zhao, Minglai Shao. Fair Data Generation via Score-based Diffusion Model. KDD Workshop on Ethical Artificial Intelligence: Methods and Applications, 2024.
[CW]	**[KDD'23-W] Dong Li**, Chen Zhao, Minglai Shao, Xujiang Zhao. Learning Fair and Domain Generalization Representation. KDD Workshop on Ethical Artificial Intelligence: Methods and Applications, 2023.
[CW]	**[IMCEC-W'21]** Wang Caiyun, Sun Xuemei, Rong Chuitian, **Li Dong**. Titter Rumor Detection Technology Based on Hierarchical Capsule Network. IEEE 4th Advanced Information Management, Communicates, Electronic and Automation Control Conference, 2021.

ACADEMIC SERVICES

- **Chair-ship and Organizer**
  - **[Publicity Chair]** The 4th Workshop on Ethical Artificial Intelligence: Methods and Applications (EAI @ KDD'25).
  - **[Publicity Chair]** The 4th Workshop on Uncertainty Reasoning and Quantification in Decision Making (UDM @ KDD'25).
  - **[Web Chair]** The 2nd Workshops on Advances in Robust and Reliable Machine Learning (ARRML @ SDM'25).
- **Conference Program Committee / Reviewer**
  - ACL ARR 2026 January – *Reviewer*
  - ICML 2026 – *Reviewer*
  - KDD 2026 AI4Sciences Track – *Reviewer*
  - KDD 2026 D&B Track – *Reviewer*
  - KDD 2026 Research Track Second Cycle – *Reviewer*
  - IJCAI 2026 Survey Track – *Reviewer*
  - PAKDD 2026 – *Reviewer*
  - ICASSP 2026 – *Reviewer*

- WWW 2026 – *Program Committee*
  - AAAI 2026 – *Program Committee*
  - KDD 2026 Research Track First Cycle - *Reviewer*
  - ACL ARR 2025 May – *Reviewer*
  - ECML PKDD 2025 – *Reviewer*
  - KDD 2025 Datasets and Benchmarks Track – *Program Committee*
  - IJCAI 2025 Survey Track – *Program Committee*
  - ACL ARR 2025 February – *Reviewer*
  - KDD 2025 Research Track February Cycle – *Reviewer*
  - ACL ARR 2024 December – *Reviewer*
- **Journel Reviewer**
  - International Journal of Data Science and Analytics.
- **Volunteer**
  - IEEE International Conference on Data Mining 2025 (ICDM 2025).
- **Workshop Reviewer**
  - KDD Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2025.
  - KDD Workshop on Ethical Artificial Intelligence: Methods and Applications, 2025.
  - SDM Workshop on Advances in Robust and Reliable Machine Learning, 2025.
  - KDD Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2024.
  - KDD Workshop on Ethical Artificial Intelligence: Methods and Applications, 2024.
  - KDD Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2023.
  - KDD Workshop on Ethical Artificial Intelligence: Methods and Applications, 2023.
  - AAAI Workshop on Uncertainty Reasoning and Quantification in Decision Making, 2023.

TUTORIALS

- **Computational Pathology Foundation Models: Datasets, Adaptation Strategies, and Evaluation**
  - **Dong Li**, Guihong Wan, Xintao Wu, Yevgeniy Semenov, Chen Zhao.
    The Annual AAAI Conference on Artificial Intelligence (AAAI), Singapore, January 21st, 2026. [Website] [Slides]
  - **Dong Li**, Ninghui Hao, Guihong Wan, Xintao Wu, Chen Zhao.
    The IEEE International Conference on Data Mining (ICDM), Washington D.C., November 13th, 2025. [Website]
  - **Dong Li**, Guihong Wan, Chen Zhao, Xintao Wu, Yevgeniy Semenov.
    The 34th International Joint Conference on Artificial Intelligence (IJCAI), Montreal, Canada, August 16th, 2025.
    [Website] [Slides]
  - **Dong Li**, Chen Zhao, Guihong Wan, Xintao Wu.
    The Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD), June 10th, 2025. [Website]
- **AI for Precision Medicine: Integrative Analysis of Histopathology Images and Spatial Omics**
  - Ninghui Hao, Boshen Yan, **Dong Li**, Chen Zhao, Guihong Wan.
    The IEEE International Conference on Data Mining (ICDM), Washington D.C., November 13th, 2025. [Website]
- **Supervised Algorithmic Fairness in Distribution Shifts**
  - **Dong Li**, Chen Zhao, Xintao Wu.
    The 34th International Joint Conference on Artificial Intelligence (IJCAI), Montreal, Canada, August 16th, 2025.
    [Website] [Slides]
  - **Dong Li**, Chen Zhao, Xintao Wu.
    SIAM International Conference on Data Mining (SDM), Alexandria, Virginia, USA, May 1st, 2025. [Website] [Slides]
  - **Dong Li,** Chen Zhao, Xintao Wu.
    The Annual AAAI Conference on Artificial Intelligence (AAAI), Philadelphia, PA, USA, February 25th, 2025.
    [Website] [Slides]

INVITED TALKS

- **SolverLLM: Leveraging Test-Time Scaling for Optimization Problem via LLM-Guided Search**
  - AI TIME (November 2025, Online, Host: Qing Qi)
- **Advances in Fairness and Robustness in Machine Learning Under Distribution Shifts**
  - AI TIME (October 2024, Online, Host: Qing Qi)

HONORS AND AWARDS

- **School-Level First Prize Scholarship** *12/2023*
  Tianjin University
- **School-level Outstanding Student** *12/2023*
  Tianjin University
- **School-level Outstanding Student** *12/2022*
  Tianjin University
- **Second Prize of The 9th Teddy Cup Data Mining Challenge** *06/2021*
  Teddy Cup Data Mining Challenge Committee
- **Second Prize of ASC World University Supercomputing Competition** *01/2021*
  Southern University of Science and Technology of China
- **First Prize of Principal Scholarship** *12/2021*
  Tianjin Polytechnic University
- **Second Prize in the 12th National College Student Mathematics Competition** *12/2020*
  Chinese Mathematical Society
- **Honorable Mention of Mathematical Contest In Modeling** *12/2020*
  COMAP (US)
- **First Prize in the Chinese Graduate Mathematical Modeling Competition** *12/2020*
  Organizing Committee of China Graduate Mathematical Modeling
- **First Prize in the Chinese Graduate Mathematical Modeling Competition** *12/2020*
  Organizing Committee of China Graduate Mathematical Modeling
- **School-level Outstanding Student** *12/2020*
  Tianjin Polytechnic University
- **Bronze Award in the National College Student Algorithm Design and Programming Challenge** *11/2020*
  Tianjin Polytechnic University
- **Third Prize in the May Day Mathematical Modeling Competition** *06/2020*
  Tianjin Polytechnic University
- **First prize in the undergraduate category of the MathorCup College Mathematical Modeling Challenge** *06/2020*
  China Optimal Law System Planning and Economic Mathematics Research Association
- **First Prize of the National College Student Mathematical Modeling Competition (Tianjin Division)** *06/2020*
  Chinese Society of Industrial and Applied Mathematics
- **First Prize of Principal Scholarship** *12/2019*
  Tianjin Polytechnic University
- **Tianjin Municipal Government People's Scholarship** *12/2019*
  Tianjin Municipal Commission of Education
- **School-level Outstanding Student** *12/2019*
  Tianjin Polytechnic University
- **Third Prize in the 11th National College Student Mathematics Competition** *11/2019*
  Chinese Mathematical Society
- **Second Prize in the Mathematics Competition of Ordinary Universities in Tianjin** *07/2019*
  Tianjin Municipal Commission of Education
- **Tianjin Polytechnic University 2018 Freshman Scholarship** *08/2018*
  Tianjin Polytechnic University