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教育经历 清华大学, 计算机科学与技术系, **博士生** 2020.09-2025.06 (预计)

指导教师: 崔鹏老师

GPA: 3.97/4.0 排名: 3/129

清华大学, 计算机科学与技术系, 本科 2016.08 - 2020.06

清华大学优良毕业生 (前 10%) **GPA: 3.81/4.0 排名: 11/169**

访问经历 剑桥大学,应用数学与理论物理系,**访问学者** 2024.06 - 2024.10 (预计)

指导老师: Mihaela van der Schaar

斯坦福大学,管理科学与工程系,**访问学者** 2023.10 - 2024.04

指导老师: Jose Blanchet

哥伦比亚大学, 商学院, 决策风险控制组, **访问学者** 2023.01 - 至今

指导老师: Hongseok Namkoong

邀请报告 [2] Data Heterogeneity Analysis for Out-of-Distribution Generalization

Peng Cui, Jiashuo Liu, Bo Li, Renzhe Xu

Tutorial in SIAM Conference on Data Mining, (SDM), 2024

[1] Modeling Data Heterogeneity under Distribution Shifts

Website: https://sites.google.com/view/neurips2023-tutorial-datahete

Jiashuo Liu, Tiffany (Tianhui) Cai, Peng Cui, Hongseok Namkoong

Tutorial in Neural Information Processing Systems (NeurIPS), 2023

[中国大陆机构首次]

[入选 Two Sigma NeurIPS 2023 Favorite Papers/Presentations (9/3500+)]

论文发表 (* 表示共同一作)

第一作者:

[10] Stability Evaluation via Distributional Perturbation Analysis

Jose Blanchet, Peng Cui, Jiajin Li, **Jiashuo Liu** (α - β order)

In the International Conference on Machine Learning (ICML), 2024

[9] Geometry-Calibrated DRO: Combating Over-Pessimism with Free Energy Implications

Jiashuo Liu, Jiayun Wu, Tianyu Wang, Hao Zou, Peng Cui
In the International Conference on Machine Learning (ICML), 2024
In NeurIPS Information Processing Systems (NeurIPS), 2023, Workshop on Distribution Shifts.

[8] Enhancing Distributional Stability among Sub-populations **Jiashuo Liu**, Jiayun Wu, Jie Peng, Xiaoyu Wu, Yang Zheng, Bo Li, Peng Cui *In the 27th International Conference on Artificial Intelligence and Statistics (AISTATS)*, 2024

[7] On the Need for a Language Describing Distribution Shifts: Illustrations on Tabular Datasets

Jiashuo Liu*, Tianyu Wang*, Peng Cui, Hongseok Namkoong
In Neural Information Processing Systems (NeurIPS), 2023, Datasets and Benchmarks Track
[入选 Two Sigma NeurIPS 2023 Favorite Papers/Presentations (9/3500+)]

[6] Measure the Predictive Heterogeneity **Jiashuo Liu**, Jiayun Wu, Renjie Pi, Renzhe Xu, Xingxuan Zhang, Bo Li and Peng Cui *The 11th International Conference on Learning Representations (ICLR)*, 2022

[5] Distributionally Robust Learning with Stable Adversarial Training **Jiashuo Liu**, Zheyan Shen, Peng Cui, Linjun Zhou, Kun Kuang and Bo Li *In IEEE Transactions on Knowledge and Data Engineering (TKDE)*, 2022

[4] Distributionally Robust Optimization with Data Geometry **Jiashuo Liu***, Jiayun Wu*, Bo Li and Peng Cui *In Neural Information Processing Systems (NeurIPS)*, 2022 [Spotlight, Top 3%]

[3] Kernelized Heterogeneous Risk Minimization **Jiashuo Liu***, Zheyuan Hu*, Peng Cui, Bo Li, Zheyan Shen In Neural Information Processing Systems (NeurIPS), 2021

[2] Heterogeneous Risk Minimization

Jiashuo Liu, Zheyuan Hu, Peng Cui, Bo Li, Zheyan Shen

In International Conference on Machine Learning (ICML), 2021

[Short talk, Top 21.5%]

[1] Stable Adversarial Learning under Distributional Shifts **Jiashuo Liu**, Zheyan Shen, Peng Cui, Linjun Zhou, Kun Kuang, Bo Li and Yishi Lin *In AAAI Conference on Artificial Intelligence (AAAI)*, 2021.

其他作者:

[10] Towards Robust Out-of-Distribution Generalization Bounds via Sharpness

Yingtian Zou, Kenji Kawaguchi, Yingnan Liu, **Jiashuo Liu**, Mong-Li Lee, Wynne Hsu *In the 12th International Conference on Learning Representations (ICLR)*, 2024 [Spotlight, Top 5%]

- [9] Domain-wise Data Acquisition to Improve Performance under Distribution Shift Yue He, Dongbai Li, Pengfei Tian, Han Yu, **Jiashuo Liu**, Hao Zou, Peng Cui *In the International Conference on Machine Learning (ICML)*, 2024
- [8] Distributionally Generative Augmentation for Fair Facial Attribute Classification Fengda Zhang, Qianpei He, Kun Kuang, **Jiashuo Liu**, Long Chen, Chao Wu, Jun Xiao, Hanwang Zhang

In the Conference on Computer Vision and Pattern Recognition (CVPR), 2024

- [7] Rethinking the Evaluation Protocol of Domain Generalization Han Yu, Xingxuan Zhang, Renzhe Xu, **Jiashuo Liu**, Yue He, Peng Cui In the Conference on Computer Vision and Pattern Recognition (CVPR), 2024
- [6] Offline Policy Evaluation in Large Action Spaces via Outcome-Oriented Action Grouping Jie Peng, Hao Zou, **Jiashuo Liu**, Shaoming Li, Yibao Jiang, Jian Pei and Peng Cui *The ACM Web Conference (WWW)*, 2023.
- [5] Towards the ultimate PMT waveform analysis for neutrino and dark matter experiments Dacheng Xu, Benda Xu, Erjin Bao, Yiyang Wu, Aiqiang Zhang, Yuyi Wang, Geliang Zhang, Yu Xu, Ziyi Guo, Jihui Pei, Hanyang Mao, **Jiashuo Liu**, Zhe Wang, Shaomin Chen *In Journal of Instrumentation (JINST)*, 2022.
- [4] Invariant Preference Learning for General Debiasing in Recommendation Zimu Wang, Yue He, **Jiashuo Liu**, Wenchao Zou, Philip Yu, Peng Cui *In SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, 2022.
- [3] Triple Generative Adversarial Networks.

 Chongxuan Li, Kun Xu, Jun Zhu, **Jiashuo Liu**, Bo Zhang

 In Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2021.
- [2] Signed Graph Neural Network with Latent Groups
 Haoxin Liu, Ziwei Zhang, Peng Cui, Yafeng Zhang, Qiang Cui, **Jiashuo Liu**, Wenwu Zhu
 In SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2021.
- [1] Stable Learning via Differentiated Variable Decorrelation Zheyan Shen, Peng Cui, **Jiashuo Liu**, Tong Zhang, Bo Li, Zhitang Chen In SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2020.

发明专利

[2] Invariant learning method and device based on heterogeneity hybrid data. Issued 2023 Peng Cui, **Jiashuo Liu**

CN Patent: CN 113205184 B, filed April 28, 2021, and issued January 31, 2023.

[1] Distribution robustness adversarial learning method. Issued 2022

Peng Cui, Jiashuo Liu

CN Patent: CN 112085194 B, filed August 30, 2020, and issued December 13, 2022.

预印论文

Predictive Heterogeneity: Measures and Applications

Jiashuo Liu, Jiayun Wu, Bo Li, Peng Cui

Revision & Resubmit at JMLR

Towards Out-of-Distribution Generalization: A Survey

Jiashuo Liu*, Zheyan Shen*, Yue He, Xingxuan Zhang, Renzhe Xu, Han Yu, Peng Cui *under review*

Distributionally Invariant Learning: Rationalization and Practical Algorithms **Jiashuo Liu**, Jiayun Wu, Jie Peng, Zheyan Shen, Bo Li and Peng Cui *under review*

获得荣誉

清华大学-华为奖学金 (一等)	2023.11
清华大学综合奖学金 (二等)	2022.11
国家奖学金	2021.10
清华大学优良毕业生	2020.06
清华大学 TP-Link 奖学金	2019.11
清华大学-丰田奖学金	2018.11
清华大学综合优秀奖学金	2017.11
清华大学新生奖学金 (二等)	2016.08

学术服务

参与审稿: Operations Research: 2023; ICML: 2022, 2023, 2024; NeurIPS: 2023; AISTATS: 2021,2023,2024; UAI: 2022,2023; CVPR: 2022,2023,2024; ECCV: 2024; ICCV: 2023; AAAI: 2022; IJCAI: 2022,2023; TMM: 2022

教学经历

软件工程助教, 2019, 2020, 2021, 2022 秋, 2022, 2023 春, 指导教师:白晓颖,裴丹,王建勇

面向对象程序设计助教, 2022 夏, 指导教师: 范静涛

技能

编程语言: C, C++, Python

数值计算: Matlab, Mosek, Gurobi 操作系统: Linux, Mac OSX, Windows.