

Xinting Liao | Curriculum Vitae

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I am a joint Postdoctoral Fellow at the Vector Institute and UBC. My research interests include trustworthy machine learning, collaborative (federated) modeling, and foundation models.

Contact

Web links:

- Homepage ○ Google Scholar ○ ORCID ○ DBLP ○ GitHub ○ Semantic Scholar

Education and Professional Service

Zhejiang University

Doctor of Science in Computer Science

Hangzhou, China

Sep. 2020 – Jun. 2025

- Supervisor: **Xiaolin Zheng & Chaochao Chen.**

Sichuan University

Bachelor of Science in Software Engineering, (GPA: 3.81/4.0)

Chengdu, China

Sep. 2016 – Jun. 2020

Experience

Vector Institute & The University of British Columbia

Canada

Vector Distinguished Postdoctoral Fellow

Jul. 2025 – Present

- Supervisor: **Xiaoxiao Li & Deval Pandya.**
- Task: Federated Learning with Foundation Models, AI Safety.

NExT++ Lab in National University of Singapore

Singapore

Visiting Student

Jun. 2024 – Jun. 2025

- Supervisor: **Tat-Seng Chua.**
- Task: Federated recommender system, Collaborative learning on foundation models.

Text Intelligence Lab in Westlake University

Hangzhou, China

Visiting Student

Oct. 2019 – May. 2020

- Supervisor: **Yue Zhang.**
- Task: Mining concept stocks based on language model (BERT).

Medical Image Lab in Sichuan University

Chengdu, China

Undergraduate Intern

Mar. 2018 – Jun. 2019

- Task: System of breast lesion diagnosis.

Awards

Prizes:

- The 3rd Chinese Graduate Artificial Intelligence Innovation Competition (Third Prize) 2021
- Longfor Scholarship 2023
- Wen-Chixiang Scholarship 2024
- Outstanding Graduate Student 2023, 2024
- Five Virtues Student 2024

Professional Service

Program Committee Member or Reviewer

- ACM MM, ○ ACL ARR, ○ EMNLP ARR, ○ ICML, ○ TPAMI,
- NeurIPS, ○ ICLR, ○ AISTATS, ○ CIKM ○ AAAI

Full presentation list

Conference and Journal papers: Note that the underline indicates the first author, and the dagger[†] indicates the corresponding author.

1. *PPGenCDR: A Stable and Robust Framework for Privacy-Preserving Cross-Domain Recommendation.*
Xinting Liao, Weiming Liu, Xiaolin Zheng, Binhu Yao, Chaochao Chen.
In Proc. of **AAAI 2023**
2. *Federated Probabilistic Preference Distribution Modelling with Compactness Co-Clustering for Privacy-Preserving Multi-Domain Recommendation.*
Weiming Liu, Chaochao Chen, Xinting Liao, Mengling Hu, Jianwei Yin, Yanchao Tan, Longfei Zheng.
In Proc. of **IJCAI 2023**
3. *HyperFed: Hyperbolic Prototypes Exploration with Consistent Aggregation for Non-IID Data in Federated Learning.*
Xinting Liao, Weiming Liu, Chaochao Chen, Pengyang Zhou, Huabin Zhu, Yanchao Tan, Jun Wang, Yue Qi.
In Proc. of **IJCAI 2023**
4. *Joint Local Relational Augmentation and Global Nash Equilibrium for Federated Learning with Non-IID Data.*
Xinting Liao, Chaochao Chen, Weiming Liu, Pengyang Zhou, Huabin Zhu, Shuheng Shen, Weiqiang Wang, Mengling Hu, Yanchao Tan, Xiaolin Zheng.
In Proc. of **ACM MM 2023**
5. *Differentially Private Sparse Mapping for Privacy-Preserving Cross Domain Recommendation.*
Weiming Liu, Xiaolin Zheng, Chaochao Chen, Mengling Hu, Xinting Liao, Fan Wang, Yanchao Tan, Dan Meng, Jun Wang.
In Proc. of **ACM MM 2023**
6. *Joint Internal Multi-Interest Exploration and External Domain Alignment for Cross Domain Sequential Recommendation.*
Weiming Liu, Xiaolin Zheng, Chaochao Chen, Jiajie Su, Xinting Liao, Mengling Hu, Yanchao Tan.
In Proc. of **WWW 2023**
7. *Robust Representation Learning with Reliable Pseudo-labels Generation via Self-Adaptive Optimal Transport for Short Text Clustering.*
Xiaolin Zheng, Mengling Hu, Weiming Liu, Chaochao Chen, Xinting Liao.
In Proc. of **ACL 2023**
8. *Learning Accurate and Bidirectional Transformation via Dynamic Embedding Transportation for Cross-Domain Recommendation.*
Weiming Liu, Chaochao Chen, Xinting Liao, Mengling Hu, Yanchao Tan, Fan Wang, Xiaolin Zheng, Yew-Soon Ong.
In Proc. of **AAAI 2024**
9. *Rethinking the Representation in Federated Unsupervised Learning with Non-IID Data.*
Xinting Liao, Weiming Liu, Chaochao Chen, Pengyang Zhou, Fengyuan Yu, Huabin Zhu, Binhu Yao, Tao Wang, Xiaolin Zheng, Yanchao Tan.
In Proc. of **CVPR 2024**
10. *Mitigating Catastrophic Forgetting in Large Language Models with Self-Synthesized Rehearsal.*
Jianheng Huang, Leyang Cui, Ante Wang, Chengyi Yang, Xinting Liao, Linfeng Song, Junfeng Yao, Jinsong Su.
In Proc. of **ACL 2024**
11. *Reducing Item Discrepancy via Differentially Private Robust Embedding Alignment for Privacy-Preserving Cross Domain Recommendation.*
Weiming Liu, Xiaolin Zheng, Chaochao Chen, Jiahe Xu, Xinting Liao, Fan Wang, Yanchao Tan, Yew-Soon Ong.
In Proc. of **ICML 2024**
12. *CE-RCFR: Robust Counterfactual Regression for Consensus-Enabled Treatment Effect Estimation.*
Fan Wang, Chaochao Chen, Weiming Liu, Tianhao Fan, Xinting Liao, Yanchao Tan, Lianyong Qi, Xiaolin Zheng.
In Proc. of **KDD 2024**

13. *User Distribution Mapping Modelling with Collaborative Filtering for Cross Domain Recommendation.*
Weiming Liu, Chaochao Chen, **Xinting Liao**, Mengling Hu, Jiajie Su, Yanchao Tan, Fan Wang.
In Proc. of WWW 2024
14. *FOOGD: Federated Collaboration for Both Out-of-distribution Generalization and Detection.*
Xinting Liao, Weiming Liu, Pengyang Zhou, Fengyuan Yu, Jiahe Xu, Jun Wang, Wenjie Wang, Chaochao Chen, Xiaolin Zheng.
In Proc. of NeurIPS 2024
15. *Mining User Consistent and Robust Preference for Unified Cross Domain Recommendation.*
Xiaolin Zheng, Weiming Liu, Chaochao Chen, Jiajie Su, **Xinting Liao**, Mengling Hu, Yanchao Tan.
In Proc. of TKDE 2024
16. *FedGF: Enhancing Structural Knowledge via Graph Factorization for Federated Graph Learning.*
Pengyang Zhou, Chaochao Chen, Weiming Liu, **Xinting Liao**, Fengyuan Yu, Zhihui Fu, Xingyu Lou, Jun Wang, Wu Wen, Xiaolin Zheng
In Proc. of WSDM 2024
17. *Learning Uniform Clusters on Hypersphere for Deep Graph-level Clustering.*
Mengling Hu, Chaochao Chen, Weiming Liu, Xinyi Zhang, **Xinting Liao**, Xiaolin Zheng
Preprint
18. *Federated Learning for Short Text Clustering.*
Mengling Hu, Chaochao Chen, Weiming Liu, **Xinting Liao**, Xiaolin Zheng
Preprint
19. *Enhancing Progressive Diagnosis Prediction in Healthcare with Continuous Normalizing Flows.*
Yanchao Tan, Hengyu Zhang, Zihao Zhou, Guofang Ma, Fan Wang, Weiming Liu, **Xinting Liao**, Vicki S Hertzberg, Carl Yang
Companion Proceedings of WWW 2024
20. *Enhancing Dual-Target Cross-Domain Recommendation with Federated Privacy-Preserving Learning.*
Zhenghong Lin, Wei Huang, Hengyu Zhang, Jiayu Xu, Weiming Liu, **Xinting Liao**, Fan Wang, Shiping Wang, Yanchao Tan
In Proc. of IJCAI 2024
21. *Joint Similarity Item Exploration and Overlapped User Guidance for Multi-Modal Cross-Domain Recommendation .*
Weiming Liu, Chaochao Chen, Jiahe Xu, **Xinting Liao**, Fan Wang, Xiaolin Zheng, Zhihui Fu, Ruiguang Pei, Jun Wang
In Proc. of WWW 2025
22. *FedGOG: Federated Graph Out-of-Distribution Generalization with Diffusion Data Exploration and Latent Embedding Decorrelation.*
Pengyang Zhou, Chaochao Chen, Weiming Liu, **Xinting Liao**, Wenkai Shen, Jiahe Xu, Zhihui Fu, Jun Wang, Wen Wu David, Xiaolin Zheng
In Proc. of AAAI 2025
23. *Distinguish Then Exploit: Source-free Open Set Domain Adaptation via Weight Barcode Estimation and Sparse Label Assignment.*
Weiming Liu, Jun Dan, Fan Wang, **Xinting Liao**, Junhao Dong, Hua Yu, Shunjie Dong, Lianyong Qi
In Proc. of CVPR 2025
24. *Joint Item Embedding Dual-view Exploration and Adaptive Local-Global Fusion for Federated Recommendation.*
Pengyang Zhou, Chaochao Chen, Weiming Liu, Wenkai Shen, **Xinting Liao**, Huarong Deng, Zhihui Fu, Jun Wang, Wu Wen and Xiaolin Zheng
In Proc. of SIGIR 2025
25. *FOCoOp: Enhancing Out-of-Distribution Robustness in Federated Prompt Learning for Vision-Language Models.*
Xinting Liao, Weiming Liu, Jiaming Qian, Pengyang Zhou, Jiahe Xu, Wenjie Wang, Chaochao Chen, Xiaolin Zheng, Tat-Seng Chua
In Proc. of ICML 2025
26. *Efficient Source-free Unlearning via Energy-Guided Data Synthesis and Discrimination-Aware Multitask Optimization.*
Xiuyuan Wang, Chaochao Chen, Weiming Liu, **Xinting Liao**, Fan Wang, Xiaolin Zheng
In Proc. of ICML 2025
27. *Tackling Federated Long-Tailed Learning via Synthetic Feature-Based Decoupled Training.*
Huabin Zhu, Chaochao Chen, **Xinting Liao**, Pengyang Zhou, Xiaolin Zheng
In Proc. of SIGKDD 2025

- 28. Solving Discrete (Semi) Unbalanced Optimal Transport with Equivalent Transformation Mechanism and KKT-Multiplier Regularization.**
Weiming Liu, **Xinting Liao**[†], Jun Dan, Fan Wang, Hua Yu, Junhao Dong, Shunjie Dong, Lianyong Qi, Yew-Soon Ong.
In Proc. of NeurIPS 2025

Patents:

1. *Privacy protection cross-domain recommendation method based on generative model.*
Chaochao Chen, **Xinting Liao**, Xiaolin Zheng.
Application Number **CN202310742959.1**
2. *A federal modeling method and system based on non-independent identically distributed data.*
Chaochao Chen, Xiaolin Zheng, **Xinting Liao**.
Application Number **CN202310757831.2**
3. *The invention relates to a federal learning method of non-independent identically distributed data based on Nash equilibrium aggregation.*
Chaochao Chen, **Xinting Liao**, Xiaolin Zheng.
Application Number **CN117313836A**