### Li Sun (Associate Professor, Ph.D.)

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#### Affiliation North China Electric Power Univ., Beijing, China

**Associate Professor** at School of Control & Computer Engineering 2024 -Now **Assistant Professor** at School of Control & Computer Engineering 2021 - 2023

#### Education Visiting Scholar Univ. of Illinois at Chicago, USA

2019 - 2020

Advisor: Prof. Philip S. Yu (ACM/IEEE Fellow)

#### Ph.D. Beijing Univ. of Posts and Telecomm., China 2016 – 2021

Computer Science (Dissertation: Research on Social Network Alignment)

Advisor: Prof. Sen Su

Beijing Outstanding Postgraduate Award, National Scholarship in 2019.

#### B.Eng. Beijing Univ. of Posts and Telecomm., China

2012 - 2016

Internet of Things

Beijing Outstanding Graduate Award, National Scholarship in 2014 & 2015.

#### Professional Services

**Program Committee:** NeurIPS'24, SIGKDD'24/'23/'22, ACM TheWebConf'24, IJ-CAI'24/'22, AAAI'24/'23/'22/21, CIKM'24, SDM'24, WSDM'22, ECAI'20, etc.

Guest Editor: Springer JMLC, Electronics

Journal Reviewer: IEEE TMC, IEEE TBD, ACM TWEB, ACM TIST, Elsevier

IP&M, Springer JMLC, etc.

Publicity Chair: IEEE DSS'24, IEEE SocialCom'23 Section Chair: IEEE ICDM'23, IEEE BigData'19

### Funding

National Natural Science Foundation of China: Young Scholar, Dynamic Social Network Representation and Alignment (2023-2025)

Fundamental Research Funds for the Central Universities: General Project, Social Network Fusion with Riemannian GNNs (2022-2023)

#### Honors

Beijing Assoc. for Sci. & Tech., Young Elite Scientists Sponsorship, 2024 ACM CIKM'22, Best Paper Winners (Honorable Mention), Oct., 2022

#### Selected Publications

#### CCF-A: 17, CCF-B: 5, ACM/IEEE Trans.: 8, Google Citation: ~950.

- [C1] **Li Sun**, Zhenhao Huang, Hao Peng, Yujie Wang, Chunyang Liu, Philip S. Yu, LSEnet: Lorentz Structural Entropy Neural Network for Deep Graph Clustering, **ICML'24**.
- [C2] **Li Sun**, Jingbin Hu, Suyang Zhou, Zhenhao Huang, Junda Ye, Hao Peng, Zhengtao Yu and Philip S. Yu. *RicciNet: Deep Clustering via A Riemannian Generative Model*, **ACM TheWebConf'24** (WWW).
- [C3] Li Sun, Zhenhao Huang, Zixi Wang, Feiyang Wang, Hao Peng and Philip S. Yu. *Motif-aware Riemannian Graph Neural Network with Generative-Contrastive Learning*, AAAI'24, Oral, pp. 9044-9052.
- [C4] **Li Sun**, Jingbin Hu, Mengjie Li and Hao Peng. *R-ODE: Ricci Curvature Tells When You Will Be Informed.* **SIGIR'24**.
- [J1] **Li Sun**, Zhongbao Zhang, Feiyang Wang, Pengxin Ji, Jian Wen, Sen Su and Philip S. Yu, *Aligning Dynamic Social Networks: An Optimization over Dynamic Graph Autoencoder*, **IEEE TKDE**, 2023, 35(6): 5597-5611.
- [C5] **Li Sun**, Feiyang Wang, Junda Ye, Hao Peng and Philip S. Yu, Congregate: Contrastive Graph Clustering in Curvature Spaces, **IJCAI'23**, pp. 7590-7607.

- [C6] Li Sun, Junda Ye, Hao Peng and Philip S. Yu, Self-supervised Continual Graph Learning in Adaptive Riemannian Spaces, AAAI'23, pp. 4633-4642.
- [J2] **Li Sun**, Zhongbao Zhang, Gen Li, Pengxin Ji, Sen Su and Philip S. Yu.  $MC^2$ : Unsupervised Multiple Social Network Alignment, **ACM TIST**, 2023, 14(4): 70:1-70:22.
- [J3] Li Sun, Yang Du, Shuai Gao, Junda Ye, Feiyang Wang, Fuxin Ren, Mingchen Liang, Yue Wang and Shuhai Wang, GroupAligner: A Deep Reinforcement Learning with Domain Adaptation for Social Group Alignment, ACM TWEB, 2023, 17(3): 17:1-17:30.
- [C7] **Li Sun**, Zhenhao Huang, Hua Wu, Junda Ye, Hao Peng, Zhengtao Yu and Philip S. Yu, *DeepRicci: Self-supervised Graph Structure-Feature Co-Refinement for Alleviating Over-squashing*, **ICDM'23**, pp.558-567.
- [C8] Li Sun, Zhongbao Zhang, Junda Ye, Hao Peng, Jiawei Zhang, Sen Su and Philip S. Yu, A Self-supervised Mixed-curvature Graph Neural Network, AAAI'22, pp. 4146-4155.
- [C9] Li Sun, Junda Ye, Hao Peng, Feiyang Wang and Philip S. Yu, A Self-supervised Riemannian GNN with Time Varying Curvature for Temporal Graph Learning, CIKM'22, pp. 1827-1836. Best Paper Winners (Honorable Mention), 6/283.
- [C10] **Li Sun**, Zhongbao Zhang, Jiawei Zhang, Feiyang Wang, Hao Peng, Sen Su and Philip S. Yu, *Hyperbolic Variational Graph Neural Network for Modeling Dynamic Graphs*, **AAAI'21**, pp. 4375-4383.
- [C11] **Li Sun**, Zhongbao Zhang, Jiawei Zhang, Feiyang Wang, Yang Du, Sen Su and Philip S. Yu, *PERFECT: A Hyperbolic Embedding for Joint User and Community Alignment*, **ICDM'20**, pp. 501-510.

## Other Publications

DBLP https://dblp.org/pid/57/2405-8.html
Google Scholar https://scholar.google.com.hk/citations?user=df8FxPAAAAAJ

- [J4] Li Sun, Mengjie Li, Yong Yang, Xiao Li, Lin Liu, Pengfei Zhang and Haohua Du, RCoCo: Contrastive Collective Link Prediction across Multiplex Network in Riemannian Space, International Journal of Machine Learning and Cybernetics, 2024.
- [J5] Li Sun, Junda Ye, Jiawei Zhang, Yong Yang, Mingsheng Liu, Feiyang Wang and Philip S. Yu, Contrastive Sequential Interaction Network Learning on Co-Evolving Riemannian Spaces, International Journal of Machine Learning and Cybernetics, 2023.
- [C12] **Li Sun**, Zhongbao Zhang, Pengxin Ji, Jian Wen, Sen Su and Philip S. Yu, Dynamic Social Network Alignment, **IEEE BigData'19**, pp. 968-977.
- [J6] Zhongbao Zhang, Shuai Gao, Sen Su, **Li Sun**, Ruiyang Chen, MINING: Multi-Granularity Network Alignment Based on Contrastive Learning. **IEEE TKDE**, 2023, 35(12): 12785-12798.
- [C13] Junda Ye, Zhongbao Zhang, **Li Sun**, Yang Yan, Feiyang Wang and Fuxin Ren, SINCERE: Sequential Interaction Networks representation learning on Co-Evolving RiEmannian manifolds, **ACM The Web Conf.'23** (WWW), pp. 360-371.
- [J7] Xiao Li, **Li Sun**, Mengjie Ling, Yan Peng, A Survey of Graph Neural Network based Recommendation in Social Networks, **Neurocomputing**, 2023, 547: 126441.
- [J8] Zhongbao Zhang, Fuxin Ren, Jiawei Zhang, Sen Su, Yang Yan, Qian Wei, **Li Sun**, Guozhen Zhu, Congying Guo, *When Behavior Analysis Meets Social Network Alignment*, **IEEE TKDE**, 2023, 35(7): 7590-7607.
- [C14] Feiyang Wang, Zhongbao Zhang, **Li Sun**, Junda Ye and Yang Yan, *DiriE: Knowledge Graph Embedding with Dirichlet Distribution*, **WWW'22**, pp. 3082-3091.
- [J9] Zhongbao Zhang, Zichang Yin, Jian Wen, **Li Sun**, Sen Su and Philip S. Yu, DeepBlue: Bi-layered LSTM for tweet popUlarity Estimation, **IEEE TKDE**, 2022,

34(10): 4737-4752.

- [J10] Zhongbao Zhang, **Li Sun**, Sen Su, Jielun Qu and Gen Li, Reconciling Multiple Social Networks Effectively and Efficiently: An Embedding Approach, **IEEE TKDE**, 2021, 34(1): 224-238.
- [J11] Huafeng Cao, Zhongbao Zhang, **Li Sun** and Zhi Wang, *Inductive and irregular dynamic network representation based on ordinary differential equations*, **KBS**, 2021, 227: 107271.
- [C15] Jiawei Zhang, Haopeng Zhang, Congying Xia, **Li Sun**, Graph-Bert: Only Attention is Needed for Learning Graph Representations, arXiv, CoRR abs/2001.05140 (2020).
- [J12] Siyuan Gao, Zhongbao Zhang, Sen Su, Jian Wen and **Li Sun**, Fair-Aware Competitive Event Influence Maximization in Social Networks, **IEEE Trans. on Netw. Sci. Eng.**, 2020, 7(4): 2528-2540.
- [C16] Yingtong Dou, Zhiwei Liu, **Li Sun**, Yutong Deng, Hao Peng and Philip S. Yu, Enhancing Graph Neural Network-based Fraud Detectors against Camouflaged Fraudsters, **CIKM'20**, pp. 315-324.
- [C17] Fuxin Ren, Zhongbao Zhang, Jiawei Zhang, Sen Su, **Li Sun**, Guozhen Zhu and Congying Guo, *BANANA: when Behavior ANAlysis meets social Network Alignment*, **IJCAI'20**, pp. 1438-1444.
- [C18] Feiyang Wang, **Li Sun**, and Zhongbao Zhang, *Hyperbolic User Identity Linkage across Social Networks*, **GlobeCom'20**, pp. 1-6.
- [C19] Gen Li, **Li Sun**, Zhongbao Zhang, Pengxin Ji, Sen Su and Philip S. Yu,  $MC^2$ : Unsupervised Multiple Social Network Alignment, **IEEE BigData'19**, 1151-1156.
- [C20] Jian Wen, Zhongbao Zhang, Zichang Yin, **Li Sun**, Sen Su and Philip S. Yu, DeepBlue: Bi-layered LSTM for tweet popUlarity Estimation, **IEEE BigData'19**, 1224-1231.
- [C21] Sen Su, **Li Sun**, Zhongbao Zhang, Gen Li and Jielun Qu, *MASTER: across Multiple social networks, integrate Attribute and STructure Embedding for Reconciliation*, **IJCAI'18**, pp. 3863-3869.
- [J13] Zhongbao Zhang, Jian Wen, **Li Sun**, Qiaoyu Deng, Sen Su and Pengyan Yao, Efficient incremental dynamic link prediction algorithms in social network, **KBS**, 2017, 132:226-235.

Talks

Riemannian Deep Graph Learning: An Overview@Beijing, AMSS, Chinese Academy of Science, Jun., 2023.

Riemannian Graph Machine Learning: Methodology & Application@Guilin, Guangxi Normal University, Nov., 2023.

Non-Euclidean Graph Neural Network & its Applications@Hebei University of Technology, Dec., 2021.

Representing & Aligning Networks in Hyperbolic Spaces@DataFun Summit, Oct., 2021.

Popularity Estimation across Multiple Social Networks@Beijing University of Posts and Telecommunications. Dec., 2018.

# $\begin{array}{c} \textbf{Other} \\ \textbf{Honors} \end{array}$

Outstanding Postgraduate of Beijing	2021
National Scholarship (Ph.D.)	2019
Outstanding Postgraduate, Beijing Univ. of Posts $\&$ Telecomm.	2018, 2019
First Class Degree, Queen Mary Univ. of London	2016
Outstanding Graduate of Beijing	2016
National Scholarship (Two Successive Years)	2014, 2015
First Class Scholarship, Beijing Univ. of Posts & Telecomm.	2013

#### Student Mentoring

#### Ph.D./Master Students

Wang, Feiyang (2019 - present): GlobeCom'20, WWW'22

Ye, Junda (2020 - present): WWW'23

Hu, Jingbin (2022 - present): WWW'24, SIGIR'24

Zhang, Xiujin (2023- present)

Huang, Zhenhao (2024 - present): ICML'24, AAAI'24, ICDM'23

Li, Mengjie (2025 - present): Springer JMLC

#### Undergraduate Students

Zhou, Suyang Wang, Zixi Wan, Qiqi Wang, Yujie Zhang, Shuo

#### Short Bio

Dr. Sun, Li is currently an associate professor at North China Electric Power University, Beijing. He received the Ph.D. in Computer Science from Beijing University of Posts and Telecommunications in 2021 supervised by Prof. Su, Sen, and has been a visiting scholar at University of Illinois at Chicago, USA, advised by Prof. Philip. S. Yu (ACM/IEEE Fellow). His research areas are machine learning and data mining with special attentions to graphs and Riemannian machine learning. He has published over 30 refereed top conference and journal papers, including ICML, AAAI, IJCAI, WWW, SIGIR, ICDM, CIKM, IEEE TKDE, ACM TWEB, ACM TIST, etc. He has been invited to serve as PC member in KDD, WWW, WSDM, CIKM, SDM, AAAI, IJCAI, ECAI, etc., Publicity Chair in IEEE DSS'24 and IEEE SocialCom'23, and Session Chair in ICDM'23 and IEEE BigData'19. Dr. Sun has been invited to as Reviewer in IEEE TMC, IEEE TBD, ACM TIST, ACM TWEB, Elsevier IP&M, Springer JMLC, etc., and Guest Editor in Springer JMLC and Electronics.

Reference

Available upon request.