Yan Leng

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personal website

Employment

2020-present Assistant Professor in the Department of Information, Risk and Operations Management at the McCombs School of Business at The University of Texas at Austin
- Core member in the Machine Learning Laboratory at UT Austin
- Affiliated faculty at Oden Institute for Computational Engineering and Sciences at UT Austin
- Research affiliate at the Misinformation & AI at UT Austin
- Research affiliate at the MIT Media Lab

2025-present Courtesy Faculty in the Department of Computer Science at The University of Texas at Austin

2024-present Courtesy Faculty in the School of Information at The University of Texas at Austin

Education

Ph.D.
2017-2020 **Massachusetts Institute of Technology (MIT)**, Cambridge, MA, USA
MIT Media Lab, Human Dynamics Group

Master of Science
2013-2016 **Massachusetts Institute of Technology (MIT)**, Cambridge, MA, USA
Computer Science at Electrical Engineering and Computer Science Department

Master of Science
2013-2016 **Massachusetts Institute of Technology (MIT)**, Cambridge, MA, USA
Transportation Engineering at Civil and Environmental Engineering Department

Journals

[1] **Yan Leng*** and Yuan Yuan*. Do LLM Agents exhibit social behaviors? Accepted by *Information Systems Research*.

[2] Sandro Lera* and **Yan Leng***. Beyond Pairwise Network Interactions: Implications for Information Centrality. *Information Systems Research* (2025).

[3] Junyu Cao* and **Yan Leng***. Adaptive Acquisition Tree for Recommendations with Optimality Guarantees on Short-form Video Platforms. *Management Science* (2025).

[4] **Yan Leng** and Drew Dimmery. Calibration of Heterogeneous Treatment Effects in Random Experiments. *Information Systems Research* (2024).

[5] Lei Wang, Kemi Ding, **Yan Leng**, Xiaoqiang Ren and Guodong Shi. Private Nash Equilibrium Seeking in Quadratic Network Game. *IEEE Transactions on Control of Network Systems* (2024).

[6] **Yan Leng**, Xiaowen Dong, Esteban Moro, and Alex Pentland. Long Range Social Influence in Phone Communication Network. *Information Systems Research* (2023).

[7] **Yan Leng**, Tara Sowriraja, Yujia Zhai, and Alex Pentland. Measuring Social Influence Within and Across Multi-dimensional Homophilous Communities. *IEEE Transactions on Knowledge and Data Engineering* (2023).

[8] Jahani*, E., Gallagher*, N., Merhout*, F., Cavalli*, N., Guilbeault*, D., **Leng***, **Y.**, & Bail*, C. A. An Online Experiment During the 2020 US–Iran Crisis Shows that Exposure to Common Enemies Can Increase Political Polarization. *Scientific Reports* (2022).

[9] **Yan Leng***, Dominiquo Santistevan*, and Alex Pentland. Understanding Collective Regularity in Human Mobility as a Familiar Stranger Phenomenon. *Scientific Reports* (2021).

[10] **Yan Leng**, Yujia Zhai, Shaojing Sun, Yifei Wu, Jordan Selzer, Sharon Strover, Anfan Chen, Hezhao Zhang, and Ying Ding Analysis of Misinformation During the COVID-19 Outbreak in China: Cultural, Social and Political Entanglements. *IEEE Transactions on Big Data* (2021).

[11] Dhaval Adjodah, **Yan Leng**, Shi Kai Chong, P. M. Krafft, Esteban Moro, and Alex Pentland. Accuracy-Risk Trade-Off Due to Social Learning in Crowd-Sourced Financial Predictions. *Entropy* (2021).

[12] **Yan Leng**, Yehonatan Yella, Rodrigo Ruiz, and Alex Pentland. Contextual Centrality: Going Beyond Network Structure. *Scientific Reports* (2020).

[13] Xiaobing Liu, Xuedong Yan, Feng Liu, Rui Wang, and **Yan Leng**. A Trip-specific Model for Fuel Saving Estimation and Subsidy Policy Making of Carpooling Based on Empirical Data. *Applied Energy* (2019).

[14] Shaokuan Chen, **Yan Leng**, Baohua Mao, and Shuang Liu. Integrated Weight-based Multi-criteria Evaluation on Transfer in Large Transport Terminals: A Case Study of the Beijing South Railway Station. *Transportation Research Part A: Policy and Practice* (2014).

* Equal contribution.

Refereed CS Conference

[1] **Yan Leng** and Trung Nguyen. Latent Neural Coupling of Risk and Time Preferences in LLMs Mirrors Human Biases. *EC '25: Proceedings of the 25th ACM Conference on Economics and Computation*, 2025.

[2] Yuanpei Gao, Qi Yan, **Yan Leng**, Renjie Liao. Neural MJD: Neural Non-Stationary Merton Jump Diffusion for Time Series Prediction. *Proceedings of the 39th Annual Conference on Neural Information Processing Systems*, 2025.

[3] **Yan Leng**. Can LLMs Mimic Human-Like Mental Accounting and Behavioral Biases? *EC '24: Proceedings of the 25th ACM Conference on Economics and Computation*, 2024

[4] Xue Yu, Muchen Li, **Yan Leng**, Renjie Liao. Learning Latent Structures in Network Games via Data-Dependent Gated-Prior Graph Variational Autoencoders. *Proceedings of the 41st International Conference on Machine Learning (ICML)*, 2024.

[5] Emanuele Rossi, Federico Monti, **Yan Leng**, Michael Bronstein and Xiaowen Dong. Learning to Infer Structures of Network Games. *Proceedings of the 39th International Conference on Machine Learning (ICML)*, 2022.

[6] **Yan Leng**, Xiaowen Dong, and Alex Pentland. Learning Quadratic Games on Networks. *Proceedings of the 37th International Conference on Machine Learning (ICML)*, 2020.

Revisions

[1] **Yan Leng** and Trung Nguyen. LLMs' Human-Like Behavioral Biases Emerge from Linear Neural Representations. Revise and resubmit at *Proceedings of the National Academy of Sciences (PNAS)*.

[2] **Yan Leng**, Yunxin Sang, and Ashish Agarwal. Reduce Preference Disparity Between LLMs and Humans: Calibration to Compose Human-like Ensembles. Second-round major revision at *Marking Science*.

[3] **Yan Leng**, Yijun Chen, Xiaowen Dong, Junfeng Wu, and Guodong Shi. Social Interaction Leakages from Public Behavioral Data: A Diagnostic and Differential Privacy Framework. Second-round major revision at *Information Systems Research*

[4] **Yan Leng** (lead author), Xiao Liu, Rodrigo Ruiz. Interpretable Recommendations and User-Centric Explanations with Geometric Deep Learning. Second-round major revision at *Information Systems Research*.

[5] Christina Jeong, Jason Chan, **Yan Leng**, and Yue Guo. The Role of Online Socialization at the Workplace. Third-round major revision at *Information Systems Research*.

[6] **Yan Leng**, Yunxin Sang, Dahai Yu, Binwu Wang, Yang Wang, and Guang Wang. FusionTransNet for Smart Urban Mobility: Spatiotemporal Traffic Forecasting Through Multimodal Network Integration. First-round major revision at *Management Science*.

[7] Junyu Cao*, **Yan Leng***, and Hao Wang*. Revenue-Centered Delivery Time Presentation on Platforms: A Spatial Neural ODE Approach. First-round major revision at *Management Science*.

[8] **Yan Leng** and Wen Wang. Governing Customer-Facing AI: Valuing and Unlearning Data in Fine-Tuned Language Models. Reject & resubmit at *Marketing Science*.

* Equal contribution.

Working Papers

[1] Yunxin Sang, **Yan Leng**, and Ashish Agarwal. User Perception Through LLM: A Theory-driven HyperGraph Framework for Marketing Content Generation Won INFORMS ISS Cluster Best Paper Award. INFORMS Data Science Workshop Best Student Paper Award (2024).

[2] Junyu Cao* and **Yan Leng***. Network-enabled Sequential Data Acquisition for High-dimensional Recommender Systems.

[3] Junyu Cao* and **Yan Leng***. Learning to Optimize Data Quality for Crowdsourcing Labor Markets: A Human-Algorithm-Collaborative Framework. INFORMS ISS Cluster Best Paper Award (2022).

[4] **Yan Leng** and Ashish Agarwal. Are Spatial Neighbors Complements or Substitutes? Discovering a Visits-based Local Market Structure.

*Equal contribution.

Research Awards

Oct, 2025   Best Paper Runner-up at INFORMS Data Science Workshop

Jan, 2025   Best Associate Editor for the ICIS 2024 Track: Data Analytics for Business and Societal Challenges

Oct, 2024   Best Student Paper Award at INFORMS Data Science Workshop.

Nov 2022   Finalist for Meta People's Expectations & Experiences with Digital Privacy Request for Proposals.

Oct 2022   2022 INFORMS ISS Cluster Best Paper Award.

June 2021   Second prize in INFORMS Revenue Management and Pricing Data-driven Challenge.

Grants

Oct 2023 - Aug 2025   National Institutes of Health (NIH)'s AIM-AHEAD Consortium Development Program (Received a joint $1,000,000 Grant with Prof. Ying Ding, Yifan Peng, Watkins Craig, and David Hodge).

Feb 2022 - Aug 2024   National Science Foundation (NSF) CRII Award ($154,231).

Feb, 2025   Herb Kelleher Entrepreneurship Center (HKEC) Grant ($5,000)

Feb, 2025   McCombs Research Excellence Grant ($13,400)

April 2024   OpenAI Researcher Access Program ($5,000).

Nov 2023   UT Austin Research & Creative Grants ($9,860).

Oct 2023   McCombs Research Excellence Grant ($10,000).

Oct 2023   Research Grant from Herb Kelleher Entrepreneurship Center ($5,000).

May 2023   Texas Global Faculty Research Seed Grants ($10,000).

March 2023   McCombs Research Excellence Grant ($10,000).

Dec 2021   Marketing Science Institute Grant Award ($15,000).

June 2021   Second prize in INFORMS Revenue Management and Pricing Data-driven Challenge (2021).

March 2021   McCombs Research Excellence Grant ($10,000).

Sep 2018   Russel Sage Foundation Grant Award ($7,899).

Nov 2016   MIT IDEAS Global Challenge Grant ($5,000).

Nov 2016 MIT Sandbox Innovation Fund ($1,000).

Aug 2016 Harvard Sustainability Grant ($1,000).

Teaching Awards

April 2025 McCombs BBA Faculty Honor Roll.

April 2024 2023-2024 Trammell/CBA Foundation Teaching Award for Assistant Professors.

April 2024 McCombs BBA Faculty Honor Roll.

Dec 2023 McCombs BBA Faculty Honor Roll.

May 2021 McCombs BBA Faculty Honor Roll.

Professional Service

2025 Editorial Board Member, Information Systems Research

2025 Program Chair for INFORMS Data Science Workshop

2023, 2024 Associate Editor, International Conference on Information Systems (ICIS)

2024 Ignite (Short Talk) Session Chairs for Workshop on Information Technologies and Systems (WITS)

2020 Local Chair for Workshop on Information Technologies and Systems (WITS)

2020- Reviewer for management journals, including Management Science, Information Systems Research, MIS Quarterly

2020- Reviewer for computer science conferences, including NeurIPS (Neural Information Processing Systems), ICML (International Conference on Machine Learning), The Web Conference (WWW), AAAI (Association for the Advancement of Artificial Intelligence)