

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 The University of Texas at Austin
 - Research affiliate at the Misinformation & AI at The University of Texas at Austin
 - Research affiliate at the MIT Media Lab

Education

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

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

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

Journals

- [1] **Yan Leng**, Xiaowen Dong, Esteban Moro, and Alex Pentland. Long Range Social Influence in Phone Communication Network. *Information Systems Research* (2023).
- [2] **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).
- [3] 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). *All authors contribute equally. Random authorship order.
- [4] **Yan Leng***, Dominiquo Santistevan*, and Alex Pentland. Understanding Collective Regularity in Human Mobility as a Familiar Stranger Phenomenon. *Scientific Reports* (2021). *Equal contribution.
- [5] **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).
- [6] **Yan Leng**, Haris Koutsopolous, and Jinhua Zhao. Leveraging Individual and Collective Regularity to Profile and Segment User Locations from Mobile Phone Data. *ACM Transactions on Management Information Systems (TMIS)* (2021).
- [7] 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).
- [8] **Yan Leng**, Yehonatan Yella, Rodrigo Ruiz, and Alex Pentland. Contextual Centrality: Going Beyond Network Structure. *Scientific Reports* (2020).
- [9] 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).
- [10] 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).

Refereed conference proceedings

- [1] Emanuele Rossi, Federico Monti, **Yan Leng**, Michael Bronstein and Xiaowen Dong. Learning to Infer Structures of Network Games. *International Conference on Machine Learning (ICML)*, 2022.
- [2] **Yan Leng**, Xiaowen Dong, and Alex Pentland. Learning Quadratic Games on Networks. *International Conference on Machine Learning (ICML)*, 2020.

Revisions

- [1] **Yan Leng** and Drew Dimmery. Calibration of Heterogeneous Treatment Effects in Random Experiments. Conditional accept at *Information Systems Research*.
- [2] Junyu Cao* and **Yan Leng***. Adaptive Acquisition Tree for Recommendations with Optimality Guarantees on Short-form Video Platforms. Minor revision at *Management Science*.
- [3] **Yan Leng**, Yijun Chen, Xiaowen Dong, Junfeng Wu, and Guodong Shi. Can Platforms Protect Customers' Social Interaction Structure When Behavioral Data is Public? First-round major revision at *MIS Quarterly*.
- [4] Junyu Cao* and **Yan Leng***. Network-enabled Sequential Data Acquisition for High-dimensional Recommender Systems. First-round reject & resubmit at *Management Science*.

* Equal contribution.

Working papers

- [1] **Yan Leng** and Ashish Agarwal. Are Spatial Neighbors Complements or Substitutes? Discovering a Visits-based Local Market Structure.
- [2] **Yan Leng**, Rodrigo Ruiz, and Xiao Liu. Interpretable Recommender System and Decision Support Using Geometric Deep Learning.
- [3] **Yan Leng**. Bayesian learning and information aggregation in phone communication networks.
- [4] Junyu Cao*, **Yan Leng***, and Hao Wang*. Unraveling Temporal and Spatial Dynamics: An Interpretable ST-ODE Method for Predicting Delivery Time.
- [3] Junyu Cao* and **Yan Leng***. Learning to Optimize Data Quality for Crowdsourcing Labor Markets: A Human-Algorithm-Collaborative Framework. Won INFORMS ISS Cluster Best Paper Award.

*Equal contribution.

Awards and honors

- May 2023 Texas Global Faculty Research Seed Grants.
- Feb 2022 National Science Foundation (NSF) CRII Award.
- Nov 2022 Finalist for Meta People's Expectations & Experiences with Digital Privacy Request for Proposals.
- Oct 2022 2022 INFORMS ISS Cluster Best Paper Award.
- Dec 2021 Marketing Science Institute Grant Award.
- June 2021 Second prize in INFORMS Revenue Management and Pricing Data-driven Challenge (2021).
- May 2021 McCombs BBA Faculty Honor Roll (Teaching Award).
- March 2021 UT-Austin McCombs Research Excellence Grant.
- Sep 2018 Russel Sage Foundation Grant Award.
- Nov 2016 MIT IDEAS Global Challenge Grant.

Nov 2016 MIT Sandbox Innovation Fund.

Aug 2016 Harvard Sustainability Grant.

Teaching

[MIS304] Introduction to problem solving and programming.

- McCombs faculty teaching award.

Invited talks

2022 **Learning network structures from behavioral data** at *Stanford Digital Economy Lab*.

2022 **Learning to infer structures of network games** at *Deep Exploration of non-Euclidean Data with Geometric and Topological Representation Learning* by Banff International Research Station.

2021 **Interpretable recommender system with heterogeneous information: a geometric deep learning perspective** at *ICLR Geometrical and Topological Representation Learning workshop*, University of Pittsburgh.

2019, 2020, 2021 **Learning strategic interaction from individual actions: A game-theoretic approach** at the *Northwestern Institute on Complex Systems* at Northwestern University, *Machine Learning in Finance Workshop* by Columbia University, *Alan Turing Institute*, *University of Washington Data Science Seminar*, *Carnegie Mellon University*.

2020 **Analysis of misinformation during the COVID-19 outbreak in China: cultural, social and political entanglements** at the *IDeaS Center* at Carnegie Mellon University, *UT Austin Disinformation Group* at the *Good Systems*.

2019, 2020 **Collective behaviors on networks** at *C2Smart Center* at New York University, and *Summer Institute in Computational Social Science* at Oxford.

2019 **Observational causal inference with network information** at *Graph Exploitation Symposium* by MIT Lincoln Lab.

2018 **Social Bayesian decision-making** on the *52nd Conference on Information Sciences and Systems*, 2018.

Services

Organized IS events Short talk session Chairs for WITS (2022), local chair for WITS (2021).

Organized CSS events Summer Institute of Computational Social Science (Beijing, 2021), Computational Social Science for Impact (CSS4Impact) (2020), Summer Institute of Computational Social Science (Boston, 2019).

Referee for management venues Management Science, Information Systems Research, MIS Quarterly, ACM Transactions on Management Information Systems, ICIS, CIST, HICSS, WITS, Informs Workshop on Data Science.

Referee for CS venues NeurIPS, ICML, ICLR, AAAI.

Interdisciplinary venues Plos One, PNAS, Scientific Reports.