Yan Leng

yan.leng@mccombs.utexas.edu
personal website

Employment

July, 2020- Assistant Professor in the Department of Information, Risk and Operations Management at the McCombs School of Business at The University of Texas at Austin

Education

Ph.D.
2017-2020
Massachusetts Institute of Technology (MIT), Cambridge, MA, USA
Human Dynamics Group at Media Lab.
Field of study: Understand human behaviors over social network using large-scale data sets, network theory, and machine learning.
Advisor: Professor Alex 'Sandy' Pentland

Master of Science
2013-2016
Massachusetts Institute of Technology (MIT), Cambridge, MA, USA
Computer Science at Electrical Engineering and Computer Science Department
Thesis: Urban computing using Call Detail Records: mobility pattern mining, next-location prediction and location recommendation.
Advisors: Professor Alex Pentland and Larry Rudolph (Ph.D)

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

Bachelor of Engineering
2009 - 2013
Beijing (Northern) Jiaotong University, Beijing, China
Transportation Engineering at the Traffic and Transportation Department
Computational Mathematics at the School of Science

Papers

[1] **Yan Leng**, Yujia Zhai, Shaojing Sun, Yifei Wu, Jordan Selzer, Sharon Strover, Anfan Chen, Hezhao Zhang, and Ying Ding CAnalysis of misinformation during the COVID-19 outbreak in China: cultural, social and political entanglements. *IEEE Transactions on Big Data.* 2021.

[2] **Yan Leng**, Haris Koutsopolous, and Jinahua Zhao. Profiling presence patterns and segmenting user locations from cell phone data. Accepted to *ACM Transactions on Management Information Systems (TMIS)*. 2021.

[3] **Yan Leng**, Yehonatan Yella, Rodrigo Ruiz, and Alex Pentland. Contextual centrality: going beyond network structure. Scientific Reports, 10(1), 1-10. 2020.

[4] **Yan Leng**, Xiaowen Dong, and Alex Pentland. Learning Quadratic Games on Networks International Conference on Machine Learning (ICML), 2020.

[5] 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 240 (2019): 295-311.

[6] **Yan Leng**, Martin Saveski, Alex Pentland and Dean Eckles. Observational causal inference using network information. Accepted to *NeurIPS 2019, Graph Representation Learning Workshop*.

[7] Bakker, Michiel A., Daoud A. Piracha, Patricia J. Lu, Keis Bejgo, Mohsen Bahrami, **Yan Leng**, Jose Balsa-Barreiro et al. Measuring fine-grained multidimensional integration using mobile phone metadata: the case of Syrian refugees in Turkey. *Guide to Mobile Data Analytics in Refugee Scenarios, pp. 123-140. Springer, Cham, 2019.*

[8] **Yan Leng**, Xiaowen Dong, Esteban Moro, and Alex Pentland. The Rippling Effect of Social Influence via Phone Communication Network." In *Complex Spreading Phenomena in Social Systems*, pp. 323-333. Springer, Cham, 2018.

[9] **Yan Leng**, Larry Rudolph, Jinhua Zhao, Haris Koutsopolous and Alex Pentland. Synergistic data-driven travel demand management based on phone records. *Proceedings of the ACM SIGKDD International Workshop on Urban Computing.* 2017.

[10] **Yan Leng**, Alejandro Noriega, Ira Winder, Nina Lutz, Luis Alonso, and Alex Pentland. Analysis of Tourism Dynamics and Special Events through Mobile Phone Metadata. *Proceedings of Data for Good Exchange (D4GX)*. New York, NY, 2016.

[11] Shaokuan Chen, **Yan Leng**, Baohua Mao, and Shuang Liu (2014). 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*, 66, 13-26.

Working papers

[1] **Yan Leng**, Rodrigo Ruiz, Xiaowen Dong, and Alex Pentland. Recommender systems with heterogeneous information: A geometric deep learning approach.

[2] **Yan Leng**, Xiaowen Dong, Matias Travizano, Esteban Moro, and Alex Pentland. Long range social influence in phone communication network.

[3] **Yan Leng**, Tara Sowriraja and Alex Pentland. Measuring social influence within and across multi-dimensional homophilous communities.

Awards

2021   UT-Austin McCombs Research Excellence Grant ($10,000).

2020, 2021   McCombs School of Business Undergraduate Research Assistant Grants. Advised undergraduate received the award of UT-Austin Undergraduate Research Fellowship.

Sep 2018   Received $7899 grant for the **reducing belief polarization through exposure to a common outgroup** project from Russel Sage Foundation.

June 2018   Awarded travel and participation grant by the Russel Sage Foundation to the Summer Institute in Computational Social Science at Duke University.

Apr 2018   Awarded travel and participation grant by the National Science Foundation to the fourth annual conference on network science and economics at Vanderbilt University.

Nov 2016   MIT IDEAS Global Challenge.

Nov 2016   Received $1000 MIT Sandbox Innovation Fund.

Aug 2016   Received $1000 Harvard Sustainability Grant.

Teaching

Fall 2020   MIS304 Introduction to problem solving and programming (rating 4.75/5).

Invited talks

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, 2020   **Learning strategic interaction from individual action: A game-theoretic approach** at the *Northwestern Institute on Complex Systems at Northwestern University, Machine Learning in Finance Workshop by Columbia University*, and *Alan Turing Institute*.

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 (CISS) 2018**.