

Han Ye

Department of Decision and Technology Analytics (DATA)
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PROFESSIONAL EXPERIENCE

Associate Professor College of Business Lehigh University	2022 - Present
Assistant Professor Gies College of Business University of Illinois Urbana-Champaign	2014 - 2022
Research Associate NUS Business School National University of Singapore	2013 - 2014
Business Analytics Summer Intern Xerox Innovation Group Webster, NY	2011, 2012

EDUCATION

Ph.D. Statistics and Operations Research University of North Carolina at Chapel Hill	2014
B.S. Mathematics and Applied Mathematics University of Science and Technology of China	2008

RESEARCH INTERESTS

Data Analytics, Service Operations Management, Healthcare Analytics, Machine Learning and Reinforcement Learning, Forecasting, Scheduling.

PUBLICATIONS

Zhang, H., Shen, Y., Li, J., Ye, H., and Chiang, A.Y. (2023). Adaptively Leveraging External Data with Robust Meta-Analytical-Predictive Prior Using Empirical Bayes. Forthcoming, *Pharmaceutical Statistics*.

Schecter, A., Wowak, K., Berente, N., Ye, H. and Mukherjee, U. (2021). A Behavioral Perspective on Call Center Routing: The Role of Inertia. *Journal of Operations Management*, 67(8), pp.964-988.

Li, J.Y., Zhu, R., Qu, A., Ye, H. and Sun, Z. (2021). Topic Modeling on Triage Notes with Semiorthogonal Nonnegative Matrix Factorization. *Journal of the American Statistical Association*, 116(536), pp.1609-1624.

Ye, H., Mukherjee, U., Chhajed, D., Hirsbrunner, J. and Roloff, C. (2021). Recommending encounters according to the sociodemographic characteristics of patient strata can reduce risks from type 2 diabetes. *Plos one*, 16(4), p.e0249084.

- Zhao T., Ye, H., Mukherjee, U. and Chhajed, D. (2021). Effect of Mass Gathering on Hospital Admission. *Naval Research Logistics*, 68(8), pp.995–1017.
- Ye, H., Brown, L.D. and Shen, H. (2020). Hazard Rate Estimation for Call Center Customer Patience Time. *IIE Transactions*, 52(8), pp.890-903.
- Dong, Y., Ye, H., Shen, H., Wang, Y., Ma, S., Li, H., Wang, Y. and Dong, Q. (2020). Which Patients with Acute Ischemic Stroke Benefit from the Lower Dosage of Intravenous Tissue Plasminogen Activator? A Cluster Data Analysis. *Stroke & Vascular Neurology*, 5(4).
- Ye, H., Luedtke, J. and Shen, H. (2019). Call Center Arrivals: When to Jointly Forecast Multiple Streams?. *Production and Operations Management*, 28(1), pp.27-42.
- Ibrahim, R., Ye, H., L'Ecuyer, P. and Shen, H. (2016). Modeling and forecasting call center arrivals: A literature survey and a case study. *International Journal of Forecasting*, 32(3), pp.865-874.
- Gans, N., Liu, N., Mandelbaum, A., Shen, H. and Ye, H. (2010). Service times in call centers: Agent heterogeneity and learning with some operational consequences. In *Borrowing strength: theory powering applications—A Festschrift for Lawrence D. Brown* (pp. 99-123). Institute of Mathematical Statistics. (Book Chapter.)

PATENTS

- Ye, H. and Zhao, S. (2015). Methods and systems for assessing the efficiency of call center operations. **U.S. Patent No. 9,148,511**.
- Zhao, S. and Ye, H. (2014). Call center issue resolution estimation based on probabilistic models. **U.S. Patent No. 8,787,552**.

WORKING PAPERS AND WORK IN PROGRESS

- Fu, X., Qi, J., Yang, C. and Ye, H. Elective Surgery Sequencing and Scheduling under Uncertainty. Under second round review at *Manufacturing and Service Operations Management*.
- Ye, H., Rae, D., Fan, R., and Peng, D. Do Busy Hospitals Discriminate? A Statewide Study of Interhospital Transfer Decisions. Under review at *Production and Operations Management*.
- Mukherjee, U., Ye, H. and Chhajed, D. Managing Chronic Care Encounter Capacity based on Socioeconomic Characteristics and Disparity in Access to Healthcare: An Empirical Investigation. Major revision at *Health Care Management Science*.
- Mukherjee, U., Ye, H., Chhajed, D., Hirsbrunner, J. and Roloff, C. Incorporating Socioeconomic and Demographic Diversity Information Improve Risk Prediction and Capacity Allocation in Chronic Care Delivery. Working paper.
- Ye, H. Estimating First Contact Resolution of Call Centers from Operational Data. Working paper.
- Ye, H., Liu, C., Mukherjee, U., Roumani, Y. A reinforcement learning approach for diabetes management. Work in progress.

TEACHING

Lehigh University

- Supply, Cost, and Risk Management (SCM309): Spring 2023
- Business Analytics and Modeling (BUAN352/452): Fall 2022, Spring 2023

University of Illinois at Urbana-Champaign

- Management Decision Models (BADM374), 2014-2021
- Predictive Data Analytics (BADM577), 2015-2022
- Independent Study and Research (BADM594), 2016-2017

University of North Carolina at Chapel Hill

- Introductory Statistics, 2012-2013

AWARDS, HONORS AND GRANTS

List of Teachers Ranked as Excellent, University of Illinois at Urbana-Champaign, 2015-2022.

Junior Faculty Council Research Grant, University of Illinois at Urbana-Champaign, 2021.

Junior Faculty Council Research Grant, University of Illinois at Urbana-Champaign, 2015.

Excellence in Teaching Award, University of North Carolina at Chapel Hill, 2012.

National Scholarship, University of Science and Technology of China, 2007.

Outstanding Student Scholarship, University of Science and Technology of China, 2004-2006.

PRESENTATIONS

"Personalizing Patient Encounters for Diabetes Care", with Ujjal Mukherjee and Dilip Chhajed. Virtual INFORMS Healthcare Conference, July 2021.

"An Integrative Framework for Personalizing Patient Encounters for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. Virtual INFORMS Annual Meeting, November 2020.

"Personalizing Patient Encounters for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. DSI Annual Conference, New Orleans, LA, November 2019.

"Towards the Mitigation of Healthcare Outcome Inequality in Chronic Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. INFORMS Annual Meeting, Seattle, WA, October 2019.

"Personalizing Patient Encounters for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. INFORMS Annual Meeting, Seattle, WA, October 2019.

"Predictive Encounter Decisions in Chronic Diabetes Care", with Ujjal Mukherjee and Dilip Chhajed. Midwest Healthcare Management Conference, Champaign, IL, August 2019.

"An Integrative Framework for Personalizing Patient Encounters for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. POMS Annual Conference, Washington D.C., May 2019.

"An Integrative Framework for Personalizing Patient Encounters for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. International Conference on Big Data and Information Analytics (BigDIA), Houston, TX, December 2018.

"A Framework for Prediction and Resource Allocation for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. DSI Annual Conference, Chicago, IL, November 2018.

"Issue Resolution Estimation for Customer Service Centers." INFORMS Annual Meeting, Phoenix, AZ, November 2018.

"An Integrative Framework for Personalizing Patient Encounters for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. INFORMS Annual Meeting, Phoenix, AZ, November 2018.

"A Framework for Prediction and Resource Allocation for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. Brownbag seminar, University of Illinois at Urbana-Champaign, September 2018.

"A Framework for Prediction and Resource Allocation for Diabetes Care," with Ujjal Mukherjee and Dilip Chhajed. Academy of Management Annual Meeting, Chicago, IL, August 2018.

"Predicting Triage Nurse Orders," with Zhankun Sun, Haipeng Shen, Eddie Lang, and Dongmei Wang. ICSA Applied Statistics Symposium. Chicago, IL, June 2017.

"Predicting Triage Nurse Orders," with Zhankun Sun, Haipeng Shen, Eddie Lang, and Dongmei Wang. INFORMS Annual Meeting, Nashville, TN, November 2016.

"Long-run Average Optimal Workforce Scheduling Models," with Noah Gans, Haipeng Shen and Yong-Pin Zhou. INFORMS International Conference, Waikoloa, HI, June 2016.

"Telephone Call Centers: Asymptotic Optimality of Myopic Forecasting-Scheduling Scheme", with Noah Gans, Haipeng Shen, and Yong-Pin Zhou. INFORMS Annual Meeting, Philadelphia, PA, November 2015.

"Telephone Call Centers: Asymptotic Optimality of Myopic Forecasting-Scheduling Scheme," with Noah Gans, Haipeng Shen, and Yong-Pin Zhou. Joint Statistical Meetings, Seattle, WA, August 2015.

"Data Analysis of Agent Service Times in Contact Centers," with Noah Gans, Nan Liu, Avi Mandelbaum, Haipeng Shen, and Genesys Telecommunications Laboratories. INFORMS Annual Meeting, San Francisco, CA, November 2014.

"Predictive Data Analytics for Service Operations with Application to Call Center and Healthcare." Seminar, University of Illinois at Urbana-Champaign, January 2014.

"Forecasting and Staffing Call Centers with Multiple Uncertain Arrival Streams", with Haipeng Shen and James Luedtke. INFORMS Annual Meeting, Minneapolis, MN, October 2013.

"Business Analytics for Service Operations." Seminar, University of Toronto, March 2013.

"Forecasting and Staffing Call Centers with Multiple Uncertain Arrival Streams", with Haipeng Shen and James Luedtke. INFORMS Annual Meeting, Phoenix, AZ, October 2012.

"Innovative Statistical Applications to Business," with Haipeng Shen and James Luedtke. Joint Statistical Meetings, San Diego, CA, July 2012.

PROFESSIONAL SERVICE

Lehigh University

- Department search committee, Fall 2022.
- College policy committee, Fall 2022 - present.

University of Illinois at Urbana-Champaign

Department Service

- Junior Faculty Council, August 2019 - July 2021.
- Operations Management seminar organizer, June 2015 - May 2017, June 2018 - May 2019.
- PhD enrichment session speaker, March 2017.
- Graduate Study Committee, Fall 2016 - Spring 2017.

College/university Service

- Panelist for new faculty orientation: "Prevention and Responding to Academic Misconduct," August 2019.
- Curriculum development committee for Business Analytics course series (college undergraduate core), August 2017 - May 2018.
- MBA Independent Study sponsor, Spring 2016, Spring 2017.
- Undergraduate James Scholar honor project sponsor, Fall 2014.

Conference Session Chair

- DSI Annual Conference, New Orleans, LA, November 2019.
- INFORMS Annual Meeting, Seattle, WA, October 2019.
- DSI Annual Conference, Chicago, IL, November 2018.
- INFORMS Annual Meeting, Phoenix, AZ, November 2018.
- INFORMS International Conference, Waikoloa, HI, June 2016.

Reviewer

Management Science, Production & Operations Management, Manufacturing & Service Operations Management, IISE transactions, Probability in the Engineering and Informational Sciences, Informs Journal on Computing, Stroke and Vascular Neurology, POMS CHOM Best Paper Awards Competition, DSI Annual Conference, Winter Simulation Conference.

COMPUTER SKILLS

Proficient in programming with R, SAS, Python, SQL, Matlab.

Last updated: May, 2023