

# Han Ye

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## PROFESSIONAL EXPERIENCE

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<b>Assistant Professor</b> Gies College of Business University of Illinois Urbana-Champaign	July 2014 - Present
<b>Research Associate</b> NUS Business School National University of Singapore	August 2013 - June 2014
<b>Business Analytics Intern</b> Xerox Innovation Group Webster, NY	May-August 2011, 2012

## EDUCATION

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<b>Ph.D. Statistics and Operations Research</b> University of North Carolina at Chapel Hill Dissertation: "Data-driven Service Operations Management"	May 2014
<b>B.S. Mathematics and Applied Mathematics</b> University of Science and Technology of China	July 2008

## RESEARCH INTERESTS

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

## PUBLICATIONS

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Schechter, 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 Issue 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

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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

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Fu, X., Qi, J., Chen, Y. and Ye, H. (2022) Elective Surgery Sequencing and Scheduling under Uncertainty. Under review at *Manufacturing and Service Operations Management*.

Ye, H. Estimating First Contact Resolution of Call Centers from Operational Data. Under revision.

Mukherjee, U., Ye, H. and Chhajed, D. Towards Mitigation of Healthcare Outcome Inequality in Chronic Care. Under revision.

Mukherjee, U., Ye, H., Chhajed, D., Hirsbrunner, J. and Roloff, C. "A Framework for Prediction and Resource Allocation for Diabetes Care". Under revision.

Ye, H., Gans, N., Shen, H. and Zhou, Y-P. Long-run average optimality of AR(1)-driven workforce scheduling models. In preparation.

Ye, H., Liu, C., Mukherjee, U., Roumani, Y. A reinforcement learning approach for diabetes management. Work in progress.

## TEACHING

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**Teaching Interests:** Business Analytics, Operations Management, Statistics.

University of Illinois at Urbana-Champaign		Instructor Rating	Course Rating
<b>Predictive Data Analytics</b> MSTM major, MBA elective Average enrollment: 49	Spring 2021	4.82/5.0	4.76/5.0
	Spring 2020	4.84/5.0	4.85/5.0
	Spring 2019	5.0/5.0	4.9/5.0
	Spring 2018	4.8/5.0	4.8/5.0
	Spring 2017	5.0/5.0	4.9/5.0
	Spring 2016	5.0/5.0	4.9/5.0
	Spring 2015	4.7/5.0	4.7/5.0

<b>Management Decision Models</b>	Fall 2020	4.71/5.0	4.71/5.0
Undergraduate major	Fall 2020	4.6/5.0	4.2/5.0
Average enrollment: 53	Fall 2019	4.6/5.0	4.7/5.0
	Fall 2019	4.4/5.0	4.3/5.0
	Fall 2018	4.3/5.0	4.1/5.0
	Fall 2018	4.4/5.0	4.1/5.0
	Spring 2018	4.5/5.0	4.3/5.0
	Fall 2016	4.6/5.0	4.4/5.0
	Fall 2016	4.5/5.0	4.5/5.0
	Fall 2015	4.2/5.0	4.1/5.0
	Fall 2015	4.6/5.0	4.1/5.0

### University of North Carolina at Chapel Hill

<b>Introductory Statistics</b>	Summer 2013	4.8/5.0
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## AWARDS, HONORS AND GRANTS

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- List of Teachers Ranked as Excellent, University of Illinois at Urbana-Champaign, 2015-2021.
- 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

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- "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

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### Department service, University of Illinois at Urbana-Champaign

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, University of Illinois at Urbana-Champaign**

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, Inform's Journal on Computing, Stroke and Vascular Neurology, POMS CHOM Best Paper Awards Competition, DSI Annual Conference, Winter Simulation Conference.

**COMPUTER SKILLS**

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