

# Rui Gao

---

CONTACT INFORMATION	McCombs School of Business University of Texas at Austin 2110 Speedway Stop B6500, Austin, TX 78712	✉: <a href="mailto:rui.gao@mcombs.utexas.edu">rui.gao@mcombs.utexas.edu</a> ☎: +1 (512) 232-2495 <a href="https://faculty.mcombs.utexas.edu/rui.gao/">https://faculty.mcombs.utexas.edu/rui.gao/</a>
RESEARCH INTEREST	My main research studies data-driven decision making under uncertainty and prescriptive data analytics. In particular, I develop robust, scalable and generalizable methodology for decision-making problems involving offline/online/observational data arising in the context of machine learning, risk management and revenue management.	
ACADEMIC APPOINTMENT	<b>University of Texas at Austin</b> , Austin, TX. <i>McCombs School of Business, Department of Information, Risk and Operations Management</i> Assistant Professor in Decision Science	July 2018 – Present
EDUCATION	<b>Georgia Institute of Technology</b> , Atlanta, GA. Ph.D. in Operations Research	2013 – 2018
	<b>Xi'an Jiaotong University</b> , Xi'an, China. B.S. in Mathematics and Applied Mathematics	2009 – 2013
PROFESSIONAL EMPLOYMENT	<b>SAS Institute Inc.</b> , Raleigh-Durham, NC <i>Revenue Management and Price Optimization Summer Fellow</i>	2016
PUBLICATIONS	<ol style="list-style-type: none"><li>[1] Risk-based Distributionally Robust Optimal Power Flow with Dynamic Line Rating, 2019. <i>IEEE Transactions on Power Systems</i> 33(6), pp.6074-6086. (with Cheng Wang, Feng Qiu, Jianhui Wang, Linwei Xin)</li><li>[2] Risk-based Distributionally Robust Optimal Gas-power Flow with Wasserstein Distance, 2018. <i>IEEE Transactions on Power Systems</i>, 34(3), pp.2190-2204. (with Wang Cheng, Wei Wei, Madredza Shafie-khah, Tianshu Bi, João P. S. Catalão)</li><li>[3] Reliable Off-policy Evaluation in Reinforcement Learning. Under review in <i>Operations Research</i>. (with Jie Wang and Hongyuan Zha)</li><li>[4] Wasserstein Distributionally Robust Optimization and Variation Regularization. Under review in <i>Operations Research</i>. (with Xi Chen and Anton Kleywegt)<ul style="list-style-type: none"><li>• Winner in INFORMS Data Mining Best Paper Award 2017</li><li>• Runner-up in INFORMS Computing Society Student Paper Competition 2017</li></ul></li><li>[5] Distributionally Robust Optimization with Dependence Structure. Under major revision for <i>Mathematical Programming</i>. (with Anton Kleywegt)</li><li>[6] Distributionally Robust Stochastic Optimization with Wasserstein Distance. Under minor revision for <i>Mathematics of Operations Research</i>. (with Anton Kleywegt)<ul style="list-style-type: none"><li>• Finalist in INFORMS George E. Nicholson Student Paper Competition 2016</li></ul></li><li>[7] Mutual Calibration between Explicit and Implicit Generative Models. Under review in <i>International Conference on Learning Representations (ICLR) 2021</i>. (with Qitian Wu and Hongyuan Zha)</li><li>[8] Distributionally Robust k-Nearest Neighbors. Under review in <i>International Conference on Artificial Intelligence and Statistics (AISTATS) 2021</i>. (with Shixiang Zhu, Liyan Xie, Yao Xie)</li></ol>	

- [9] Enhancing Dimension Reduction via Extremely Robust Solutions, in preparation for submission to *Operations Research* (with Long Zhao)
- [10] Extreme yet Plausible: Choosing Scenarios to Stress Test Financial Institutions. In preparation for submission to *Operations Research* (with Rohit Arora and Stathis Tompaidis)
- [11] Data-driven Robust Optimization with Known Marginal Distributions. In preparation for submission to *Operations Research*. (with Anton Kleywegt)
  - Finalist in Computational Management Science Best Student Paper Award 2017

SELECTED AWARDS	(Note: * indicates the award is received by a student collaborator)	
	<ul style="list-style-type: none"> <li>• Runner-up in INFORMS Computing Society Student Paper Competition*</li> <li>• Winner in INFORMS Data Mining Best Paper Award</li> <li>• Runner-up in INFORMS Computing Society Student Paper Competition</li> <li>• Finalist in Computational Management Science Best Student Paper Award</li> <li>• Finalist in INFORMS George E. Nicholson Student Paper Competition</li> </ul>	2019 2017 2017 2017 2016

TEACHING  
EXPERIENCE

**University of Texas at Austin**

- STA 371G Statistics and Modeling: Fall 2018, Fall 2019

**Georgia Institute of Technology**

- ISyE 3770 Statistics and Applications: Summer 2017

PROFESSIONAL  
SERVICE

Referee for:

- Operations Research, Management Science, Manufacturing & Service Operations Management, Production and Operations Management
- Mathematical Programming, INFORMS/SIAM Journal on Optimization, SIAM Journal on Control and Optimization, European Journal of Operational Research, Journal of Optimization Theory and Applications, Computers & Operations Research
- Biometrika, Journal of / Advances in Applied Probability, SIAM Journal on Mathematics of Data Science, Machine Learning, Mathematical Finance
- IEEE Transactions on Automatic Control, IEEE Transactions on Power Systems, IISE Transactions, Transportation Research Part E
- NeurIPS, ICML, ICLR

Conference organization:

- Session chair: ICCOPT 2019, INFORMS Annual Meeting 2018, 2020

Committee Service:

- |   |            |
|---|------------|
| • Departmental Faculty Search Committee                 | 2019       |
| • Committee for Undergraduate Business Analytics Course | 2019       |
| • Departmental Decision Science Seminar Organizer       | 2019, 2020 |

INVITED SEMINARS	• IBM Thomas J. Watson Research Center, Yorktown Heights	10/2019	
	• Chinese University of Hong Kong at Shenzhen, IDDA	08/2019	
	• Alibaba Group, Seattle	04/2019	
	• University of Minnesota, IMA	04/2019	
	• UT Austin, ORIE	10/2018	
	• University of Pittsburgh, IE	02/2018	
	• University of Illinois at Chicago, Business School	02/2018	
	• UT Austin, McCombs School of Business	01/2018	
	• NUS Business School	01/2018	
	• Chinese University of Hong Kong, SE&EM	01/2018	
	• Chinese University of Hong Kong at Shenzhen, SSE	01/2018	
	• City University of Hong Kong, Business School	01/2018	
	• Hong Kong University of Science and Technology, IEDA	01/2018	
	• University of Toronto, MIE	01/2018	
	• MIT Sloan School of Management	01/2018	
	• University of Illinois at Urbana Champaign, ISE	12/2017	
	• HEC Montréal	12/2017	
	• Miami Business School	12/2017	
	• NC State, ISE	11/2017	
	• Shenzhen Research Institute of Big Data	03/2017	
	• University of Illinois at Urbana Champaign, ISE	03/2017	
	• Cornell ORIE, 3rd Young Researchers Workshop	10/2016	
	• Georgia Tech ISyE, DOS seminar	10/2016	
	• Georgia Tech, ACO seminar	03/2016	
	CONFERENCE PRESENTATIONS	• INFORMS Annual Meeting, Seattle	10/2019
		• ICCOPT 2019, Berlin	08/2019
• Mostly OM, Shenzhen, China		06/2019	
• INFORMS Annual Meeting, Phoenix		11/2018	
• INFORMS Annual Meeting, Houston		10/2017	
• MOPTA Conference, Lehigh		08/2017	
• INFORMS Applied Probability Society Conference, Chicago		07/2017	
• Conference on Computational Management Science, Italy		05/2017	
• INFORMS Annual Meeting, Nashville		11/2016	
• XIV International Conference on Stochastic Programming, Brazil		07/2016	