

Bradley Sturt

PERSONAL	Name: Bradley Eli Sturt Birthday: October 1991 Office: 601 S. Morgan Street, Chicago, IL Email: bsturt@uic.edu Phone: (847) 867-1054	
ACADEMIC EMPLOYMENT	University of Illinois Chicago , Chicago, IL <i>Assistant Professor of Business Analytics</i>	<i>2020 - Present</i>
EDUCATION	Massachusetts Institute of Technology , Cambridge, MA Ph.D. in Operations Research GPA: 5.00/5.00 University of Illinois Urbana Champaign , Champaign, IL B.S. in Computer Engineering, minor in Technology and Management GPA: 3.97/4.00 Graduated with Highest Honors and University Honors (Bronze Tablet)	<i>2015 - 2020</i> <i>2010 - 2014</i>
INDUSTRY	BallotIQ , Ann Arbor, MI <i>Co-Founder</i> Facebook , Menlo Park, CA <i>Data Scientist Intern</i> Google , Mountain View, CA <i>Software Engineering Intern</i> Garmin , Olathe, KS <i>Software Engineering Intern</i>	<i>2024 - Present</i> <i>2015</i> <i>2013</i> <i>2012</i>
SELECTED AWARDS	WDSM Test of Time Paper Award, 2024 Awarded by the ACM International Conference on Web Search and Data Mining (WSDM'24) for 2014 paper on recommendation systems titled "Personalized entity recommendation in heterogeneous information networks with implicit user feedback". INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, Second Place, 2021 The competition is held each year to encourage research among junior faculty and to increase the visibility of research conducted by junior faculty within the fields of operations research and management science. Awarded for solo-author paper titled "A nonparametric algorithm for optimal stopping based on robust optimization". MIT Operations Research Center Student Paper Competition, First Place, 2019 Awarded to one paper written by students each year in the MIT ORC PhD Program, recognizing outstanding achievement in operations research. Awarded for paper titled "A data-driven approach to multi-stage stochastic linear optimization" with D. Bertsimas and S. Shtern.	

INFORMS George Nicholson Student Paper Competition, Second Place, 2017

The competition is held each year to honor outstanding papers in the field of operations research and the management sciences written by a student. Awarded for paper titled “Computation of the bootstrap: complexity, exact algorithms and deterministic approximations” with D. Bertsimas.

MIT Sloan Outstanding Teaching Assistant Award, 2017

Awarded to one graduate student in the MIT Sloan School of Management each academic year for excellence in MBA teaching. Nominated and selected by MBA students as a teaching assistant in Fall 2016 for the class “15.060: Data, Models and Decisions”.

UIUC Campus Honors Program Outstanding Senior Award, 2013

Awarded to select undergraduates in the Campus Honors Program at UIUC, which is comprised of 125 top students in each academic year.

Research

SUBMITTED

1. **The Blessing of Strategic Customers in Personalized Pricing**
Co-authored with: Zhi Chen, Weijun Xie
2. **Improving the Security of United States Elections with Robust Optimization**
Co-authored with: Braden L. Crimmins, J. Alex Halderman
Operations Research (invited for first round revision - major revision)
3. **On the Sparsity of Optimal Linear Decision Rules in Robust Optimization**
Co-authored with: Haihao Lu
Operations Research (invited for first round revision - major revision)
4. **Group Fairness in Dynamic Refugee Assignment**
Co-authored with: Daniel Freund, Thodoris Lykouris, Elisabeth Paulson, Wentao Weng
Preliminary versions: *EC 2023*, *FORC 2023*, *2023 Marketplace Innovation Workshop*

JOURNAL ARTICLES

5. **The Value of Robust Assortment Optimization under Ranking-Based Choice Models**
Sole author
Management Science, 2024
6. **A Nonparametric Algorithm for Optimal Stopping based on Robust Optimization**
Sole author
Operations Research, 2023, 71(5):1530-1557
Second Place in the INFORMS Junior Faculty Interest Group Paper Competition, 2021
7. **Dynamic Optimization with Side Information**
Co-authored with: Dimitris Bertsimas, Chris McCord
European Journal of Operational Research, Vol. 304, No. 2, 2023

8. **A Data-Driven Approach to Multistage Stochastic Linear Optimization**
Co-authored with: Dimitris Bertsimas, Shimrit Shtern
Management Science, Vol. 69, No. 1, 2023
First Place in the MIT ORC Student Paper Competition, 2019
9. **Two-Stage Sample Robust Optimization**
Co-authored with: Dimitris Bertsimas, Shimrit Shtern
Operations Research, Vol. 70, No. 1, 2022
10. **Computation of Exact Bootstrap Confidence Intervals: Complexity and Deterministic Algorithms**
Co-authored with: Dimitris Bertsimas
Operations Research, Vol. 68, No. 3, 2020
Second Place in the INFORMS George Nicholson Student Paper Competition, 2017
11. **The Path Most Traveled: Travel Demand Estimation Using Big Data Resources**
Co-authored with: Jameson Toole, Serdar Colak, Lauren Alexander, Alexandre Evsukoff, Marta C. González
Transportation Research Part C: Emerging Technologies, Vol. 58, 2015
12. **Personalized Entity Recommendation in Heterogeneous Information Networks with Implicit User Feedback**
Co-authored with: Xiao Yu, Xiang Ren, Yizhou Sun, Quanquan Gu, Urvashi Khandelwal, Brandon Norrick, Jiawei Han
Proceedings of the 7th ACM Intl. Conference on Web Search and Data Mining, 2014
Recipient of the Test of Time Paper Award in WSDM'24
13. **HeteRec: Entity Recommendation in Heterogeneous Information Networks with Implicit User Feedback**
Co-authored with: Xiao Yu, Xiang Ren, Yizhou Sun, Urvashi Khandelwal, Quanquan Gu, Brandon Norrick, Jiawei Han
Proceedings of the 7th ACM Conference on Recommender Systems, 2013

PEER-
REVIEWED
CONFERENCE
PAPERS

Invited Research Talks

SEMINARS & WORKSHOPS	MIT, Operations Research Center	October 2024
	Cornell University, Operations Research and Information Engineering	October 2024
	University of Southern California, Industrial and Systems Engineering	September 2024
	Microsoft Research, Security and Cryptography	June 2024
	University of Illinois Chicago, Workshop on Frontiers of AI in Business and Society	May 2024
	Robust Optimization Webinar	December 2023
	INSEAD, Workshop on Information and Learning in Decisions and Operations	July 2023
	Northwestern University, Industrial Engineering and Management Science	September 2022
	Virginia Tech, Industrial and Systems Engineering	May 2022
	University of Illinois Chicago, Business Analytics Organization Series	April 2022
	University of Texas Austin, Operations Research and Industrial Engineering	November 2021
	Washington University in St. Louis, Olin Business School	November 2021
	Robust Optimization Webinar	November 2020
	University of Wisconsin Madison, Industrial and Systems Engineering	January 2020
	University of Michigan, Industrial and Operations Engineering	December 2019

Indiana University, Kelley School of Business	<i>December 2019</i>
University of Illinois Chicago, College of Business Administration	<i>December 2019</i>
Princeton University, Operations Research and Financial Engineering	<i>November 2019</i>
University of Illinois Urbana-Champaign, Gies College of Business	<i>November 2019</i>
Oracle Labs, ML Research Seminar Series	<i>November 2019</i>
CMU Tepper School of Business, YinzOR Workshop	<i>August 2019</i>
MIT, Operations Research Center	<i>September 2019</i>
Technion Industrial Engineering, Quant Seminar	<i>January 2019</i>
BIRS Workshop on “Models and Algorithms for Sequential Decision-Making under Uncertainty”, Banff	<i>January 2019</i>

CONFERENCES	INFORMS Annual Meeting, Seattle	<i>October 2024</i>
	International Symposium on Mathematical Programming (ISMP), Montreal	<i>July 2024</i>
	Election Verification Network Conference, Washington DC	<i>March 2024</i>
	International Conference on Stochastic Programming (ICSP), Davis	<i>July 2023</i>
	Statewide Certification Testing of Election Systems National Conference, Huntsville	<i>June 2023</i>
	SIAM Conference on Optimization (OP23), Seattle	<i>June 2023</i>
	INFORMS Annual Meeting, Indianapolis	<i>October 2022</i>
	INFORMS Revenue Management and Pricing (RMP) Section Conference, Virtual	<i>June 2022</i>
	INFORMS Annual Meeting, Virtual	<i>October 2021</i>
	SIAM Conference on Optimization (OP21), Virtual	<i>July 2021</i>
	INFORMS Annual Meeting, Virtual	<i>October 2020</i>
	International Conference on Continuous Optimization (ICCOPT), Berlin	<i>August 2019</i>
	INFORMS Annual Meeting, Seattle	<i>October 2019</i>
	INFORMS Annual Meeting, Phoenix	<i>November 2018</i>
	International Symposium on Mathematical Programming (ISMP), Bordeaux	<i>August 2018</i>
	INFORMS Annual Meeting, Houston	<i>October 2017</i>

Teaching

INSTRUCTOR	University of Illinois Chicago	
	IDS 532, Introduction to Operations Management	<i>Fall 2024</i>
	IDS 532, Introduction to Operations Management (Instructor Evaluation: 4.67/5)	<i>Spring 2024</i>
	IDS 532, Introduction to Operations Management (Instructor Evaluation: 4.72/5)	<i>Fall 2023</i>
	IDS 516, Data Analytics for Business Professionals (Instructor Evaluation: 4.80/5)	<i>Fall 2022</i>
	IDS 270, Statistics I for Business Scholars (Instructor Evaluation: 4.19/5)	<i>Fall 2022</i>
	IDS 472, Business Data Mining (Instructor Evaluation: 4.77/5)	<i>Spring 2022</i>
	IDS 516, Data Analytics for Business Professionals (Instructor Evaluation: 4.75/5)	<i>Fall 2021</i>
	IDS 270, Statistics I for Business Scholars (Instructor Evaluation: 3.63/5)	<i>Fall 2021</i>
	IDS 472, Business Data Mining (Instructor Evaluation: 4.61/5)	<i>Spring 2021</i>
	IDS 270, Statistics I for Business Scholars (Instructor Evaluation: 4.38/5)	<i>Fall 2020</i>

Massachusetts Institute of Technology

15.S60, Computation in Optimization and Statistics	<i>January 2017, 2018, 2019</i>
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TEACHING ASSISTANT	Massachusetts Institute of Technology	
	15.097, Robust Optimization (TA Evaluation: 6.5/7)	<i>Spring 2019</i>
	15.778, Introduction to Operations Management (TA Evaluation: 6.7/7)	<i>Summer 2018</i>
	15.093, Optimization Methods (TA Evaluation: 7.0/7)	<i>Fall 2017</i>
	15.060, Data Models and Decisions (TA Evaluation: 6.7/7)	<i>Fall 2016</i>

Service

JOURNAL REVIEWER	Management Science, Operations Research, Mathematics of Operations Research, Manufacturing & Service Operations Management, SIAM Journal on Optimization, Mathematical Programming, Production and Operations Management, INFORMS Journal on Optimization, INFORMS Journal on Computing, Journal of Optimization Theory and Applications	
SERVICE AWARDS	INFORMS Management Science Meritorious Service Award	2023
CONFERENCE AND AWARD REVIEWER	INFORMS Pierskalla Best Paper Award, Committee Member ACM Conference on Economics and Computation, Program Committee INFORMS Pierskalla Best Paper Award, Committee Member	2024 2024 2023
GRANT REVIEWER	Israel Science Foundation	
UIC ACTIVITIES	UIC Business Workshop on Frontiers of AI in Business and Society, Co-Organizer UIC Business Ad Hoc Committee on Business Analytics and Artificial Intelligence UIC Business Workshop on Diversity and Effective Teaching, Panelist UIC Information and Decision Sciences PhD Committee Member	May 2024 2024 - Present October 2023 2023-Present