

## Bradley Sturt

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PERSONAL	<b>Name:</b> Bradley Eli Sturt <b>Birthday:</b> October 1991 <b>Office:</b> 601 S. Morgan Street, Chicago, IL <b>Email:</b> <a href="mailto:bsturt@uic.edu">bsturt@uic.edu</a> <b>Phone:</b> (847) 867-1054	
RESEARCH INTERESTS	Optimization under uncertainty (robust, stochastic, dynamic) and machine learning, with applications to operations management and finance.	
ACADEMIC EMPLOYMENT	<b>University of Illinois at Chicago</b> , Chicago, IL <i>Assistant Professor of Business Analytics</i>	<i>2020 - Present</i>
EDUCATION	<b>Massachusetts Institute of Technology</b> , Cambridge, MA Ph.D. in Operations Research GPA: 5.00/5.00  <b>University of Illinois Urbana Champaign</b> , Champaign, IL B.S. in Computer Engineering, minor in Technology and Management GPA: 3.97/4.00	<i>2015 - 2020</i>     <i>2010 - 2014</i>
PH.D THESIS	"Dynamic Optimization in the Age of Big Data," MIT, April 2020.	
AWARDS	<b>MIT Operations Research Center Student Paper Competition, First Place, 2019</b>  Awarded to one paper written by students each year in the MIT ORC PhD Program, recognizing outstanding achievement in operations research. Awarded for paper " <i>A data-driven approach to multi-stage stochastic linear optimization</i> ", with D. Bertsimas and S. Shtern.  <b>MIT Sloan Outstanding Teaching Assistant Award, 2017</b>  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 " <i>15.060: Data, Models and Decisions</i> ".  <b>INFORMS George Nicholson Student Paper Competition, Second Place, 2017</b>  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 " <i>Computation of the bootstrap: complexity, exact algorithms and deterministic approximations</i> " with D. Bertsimas.	

## Research

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### JOURNAL PAPERS

1. A data-driven approach to multi-stage stochastic linear optimization  
**Management Science**, forthcoming, 2021  
D. Bertsimas, S. Shtern, and B. Sturt  
– MIT Operations Research Center Student Paper Competition (1st Place), 2019
2. Two-stage sample robust optimization  
**Operations Research**, forthcoming, 2021  
D. Bertsimas, S. Shtern, and B. Sturt
3. Computation of exact bootstrap confidence intervals: Complexity and deterministic algorithms  
**Operations Research**, Vol. 68, No. 3, pp. 949-964, 2020  
D. Bertsimas and B. Sturt  
– INFORMS George Nicholson Student Paper Competition (2nd Place), 2017
4. The path most traveled: Travel demand estimation using big data resources  
**Transportation Research Part C: Emerging Technologies**, Vol. 58, pp.162-177, 2015  
J. Toole, S. Colak, B. Sturt, L. Alexander, A. Evsukoff, and M. C. González

### UNDER REVIEW

5. A nonparametric algorithm for optimal stopping based on robust optimization  
**Operations Research** (invited for first round revision - *Major Revision*)  
B. Sturt
6. Dynamic optimization with side information  
**European Journal of Operational Research** (submitted for first round review)  
D. Bertsimas, C. McCord, and B. Sturt

### IN PROGRESS

7. The value of robust assortment optimization  
B. Sturt
8. Fast algorithms for robust linear optimization  
H. Lu and B. Sturt
9. Algorithms for robust inventory management  
Z. Chen, S. Lin, and B. Sturt

### REFEREED CONFERENCE PAPERS

10. Personalized entity recommendation in heterogeneous information networks with implicit user feedback  
**Proceedings of the 7th ACM International Conference on Web Search and Data Mining**, pp. 283-292, 2014  
X. Yu, X. Ren, Y. Sun, Q. Gu, B. Sturt, U. Khandelwal, B. Norick, and J. Han
11. HeteRec: Entity recommendation in heterogeneous information networks with implicit user feedback  
**Proceedings of the 7th ACM Conference on Recommender Systems**, pp. 347-350, 2013.  
X. Yu, X. Ren, Y. Sun, B. Sturt, U. Khandelwal, Q. Gu, B. Norick, and J. Han

## Teaching

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INSTRUCTOR	<b>University of Illinois at Chicago</b>	
	IDS 472, Business Data Mining (Instructor Evaluation Score: <b>4.61/5.0</b> )	<i>Spring 2021</i>
	IDS 270, Statistics I for Business Scholars (Instructor Evaluation Score: <b>4.38/5.0</b> )	<i>Fall 2020</i>
TEACHING ASSISTANT	<b>Massachusetts Institute of Technology</b>	
	15.097, Robust Optimization (TA Evaluation Score: <b>6.5/7.0</b> )	<i>Spring 2019</i>
	15.778, Introduction to Operations Management (TA Evaluation Score: <b>6.7/7.0</b> )	<i>Summer 2018</i>
	15.093, Optimization Methods (TA Evaluation Score: <b>7.0/7.0</b> )	<i>Fall 2017</i>
	15.060, Data Models and Decisions (TA Evaluation Score: <b>6.7/7.0</b> )	<i>Fall 2016</i>

## Invited Talks

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SEMINARS & WORKSHOPS	Robust Optimization Webinar (ROW)	<i>November 2020</i>
	University of Wisconsin Madison, Industrial and Systems Engineering	<i>January 2020</i>
	University of Michigan, Industrial and Operations Engineering	<i>December 2019</i>
	Indiana University, Kelley School of Business	<i>December 2019</i>
	University of Illinois at 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 (USA East Office), ML Research Seminar Series	<i>November 2019</i>
	MIT Operations Research Center, ORC Seminar	<i>September 2019</i>
	CMU Tepper School of Business, YinzOR Workshop	<i>August 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	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>

## Service

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AD-HOC REVIEWER	Management Science, Operations Research, Mathematics of Operations Research, Manufacturing & Service Operations Management, SIAM Journal on Optimization, Production and Operations Management, INFORMS Journal on Optimization
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## Miscellaneous

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GRADUATE SCHOOL ACTIVITIES	<b>Organizer of 15.S60: Computation in Optimization and Statistics, 2017, 2018, 2019</b> Organized student-taught MIT Sloan elective course during the January term on software tools for operations research (R, Julia, Gurobi, distributed computing). Recruited and coordinated team of teaching assistants, defined course expectations, and managed enrollment.
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### **Coordinator for MIT ORC Fall Seminar Series, 2018**

Invited and hosted speakers as student coordinator for Fall seminar series.

INDUSTRY EMPLOYMENT	<b>Facebook</b> , Menlo Park, CA <i>Data Scientist Intern</i> <i>Summer 2015</i>
	<b>Google</b> , Mountain View, CA <i>Software Engineering Intern</i> <i>Summer 2013</i>
	<b>Garmin</b> , Olathe, KS <i>Software Engineering Intern</i> <i>Summer 2012</i>

COMPUTING	R, Python, Julia, C++, x86 Assembly
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LAST UPDATED	August 22, 2021
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