Bradley Sturt

Personal Name: Bradley Eli Sturt

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RESEARCH

Optimization under uncertainty (robust, stochastic, dynamic) and machine learning, with applications to

INTERESTS operations management and finance.

ACADEMIC University of Illinois at Chicago, Chicago, IL

2020 - Present

EMPLOYMENT

Assistant Professor of Business Analytics

EDUCATION Massachusetts Institute of Technology, Cambridge, MA

2015 - 2020

Ph.D. in Operations Research

GPA: 5.00/5.00

University of Illinois Urbana Champaign, Champaign, IL

2010 - 2014

B.S. in Computer Engineering, minor in Technology and Management

GPA: 3.97/4.00

Ph.D Thesis "Dynamic Optimization in the Age of Big Data," MIT, April 2020.

SELECTED AWARDS

INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, Finalist, 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. Winners to be announced at the 2021 INFORMS Annual Meeting. 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.

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".

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.

Research

Journal Papers

- 1. A data-driven approach to multi-stage stochastic linear optimization
 - Management Science, forthcoming, 2021
 - D. Bertsimas, S. Shtern, and B. Sturt
 - Winner of the MIT Operations Research Center Student Paper Competition, 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
 - Second place in the INFORMS George Nicholson Student Paper Competition, 2017

Under Review

- 4. A nonparametric algorithm for optimal stopping based on robust optimization **Operations Research** (invited for first round revision major revision)
 - B. Sturt
 - Finalist in the INFORMS JFIG Paper Competition, 2021 (winners to be announced)
- 5. Dynamic optimization with side information

European Journal of Operational Research (invited for first round revision - major revision)

D. Bertsimas, C. McCord, and B. Sturt

IN

- 7. The value of robust assortment optimization
- Preparation B. Sturt
 - 8. Fast algorithms for robust linear optimization

H. Lu and B. Sturt

OTHER REFEREED PAPERS

- 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
- 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

Instructor	University of Illinois at Chicago	
	IDS 516, Data Analytics for Business Professionals	Fall 2021
	IDS 270, Statistics I for Business Scholars	Fall 2021
	IDS 472, Business Data Mining (Instructor Evaluation Score: 4.61/5.0)	Spring 2021
	IDS 270, Statistics I for Business Scholars (Instructor Evaluation Score: 4.38/5.0)	Fall 2020
TEACHING ASSISTANT	Massachusetts Institute of Technology	
	15.097, Robust Optimization (TA Evaluation Score: 6.5/7.0)	Spring 2019
	15.778, Introduction to Operations Management (TA Evaluation Score: 6.7/7.0)	Summer 2018
	15.093, Optimization Methods (TA Evaluation Score: 7.0/7.0)	Fall 2017
	15.060, Data Models and Decisions (TA Evaluation Score: 6.7/7.0)	Fall 2016
	Invited Talks	
Seminars & Workshops	Washington University in St. Louis, Olin Business School, BCSCI Research Seminar	November 2021
	Robust Optimization Webinar (ROW)	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	December 2019
	University of Illinois at Chicago, College of Business Administration	December 2019
	Princeton University, Operations Research and Financial Engineering	November 2019
	University of Illinois Urbana-Champaign, Gies College of Business	November 2019
	Oracle Labs (USA East Office), ML Research Seminar Series	November 2019
	MIT Operations Research Center, ORC Seminar	September 2019
	CMU Tepper School of Business, YinzOR Workshop	August 2019
	Technion Industrial Engineering, Quant Seminar	January 2019
	BIRS Workshop on "Models and Algorithms for Sequential Decision-Making under Uncertainty", Banff	January 2019
Conferences	INFORMS Annual Meeting, Virtual	October 2021
	SIAM Conference on Optimization (OP21), Virtual	July 2021
	INFORMS Annual Meeting, Virtual	October 2020
	International Conference on Continuous Optimization (ICCOPT), Berlin	August, 2019
	INFORMS Annual Meeting, Seattle	October 2019
	INFORMS Annual Meeting, Phoenix	November 2018

October 2017

Service

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

Miscellaneous

GRADUATE SCHOOL ACTIVITIES Organizer of 15.S60: Computation in Optimization and Statistics, 2017, 2018, 2019

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.

Coordinator for MIT ORC Fall Seminar Series, 2018

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

Industry Employment Facebook, Menlo Park, CA

Data Scientist Intern

Summer 2015

Google, Mountain View, CA

Software Engineering Intern

Summer 2013

Garmin, Olathe, KS

Software Engineering Intern

Summer 2012

Computing

R, Python, Julia, C++, x86 Assembly

LAST UPDATED August 23, 2021