Bradley Sturt

Personal Name: Bradley Eli Sturt

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ACADEMIC University of Illinois Chicago, Chicago, IL

EMPLOYMENT Assistant Professor of Information and Decision Sciences

Aug 2020 - Present

Aug 2015 - June 2020

Education Massachusetts Institute of Technology, Cambridge, MA

Ph.D. in Operations Research

University of Illinois Urbana Champaign, Champaign, IL

Aug 2010 - June 2014

B.S. in Computer Engineering, minor in Technology and Management Graduated with Highest Honors and University Honors (Bronze Tablet)

Industry BallotIQ, Ann Arbor, MI

Co-Founder June 2024 - Present

Facebook, Menlo Park, CA

Data Scientist Intern

June 2015 - Aug 2015

Google, Mountain View, CA

Software Engineering Intern

June 2013 - Aug 2013

Garmin, Olathe, KS

Software Engineering Intern

June 2012 - Aug 2012

Selected Awards Roger J-B Wets Junior Researcher Best Paper Prize in Stochastic Programming, 2025

The competition is held every three years by the Stochastic Programming Society in recognition of the most outstanding paper in stochastic programming authored by a researcher within seven years of receiving their PhD. Awarded for solo-author paper titled "A nonparametric algorithm for optimal stopping based on robust optimization".

Operations Research Meritorious Service Award, 2024

Awarded to a select number of reviewers that have "gone above and beyond normal expectations".

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".

Management Science Meritorious Service Award, 2023

Awarded to select group of reviewers for consistently writing "timely, unbiased, and thoughtful" reports.

INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, 2nd Place, 2021

The competition is held each year 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, 2019

Awarded to one paper written by students each year in the MIT ORC PhD Program, recognizing outstanding achievement in operations research. Awarded to B. Sturt for paper titled "A data-driven approach to multi-stage stochastic linear optimization".

INFORMS George Nicholson Student Paper Competition, 2nd 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 to B. Sturt for paper titled "Computation of the bootstrap: complexity, exact algorithms and deterministic approximations".

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.

PUBLICATIONS

All authorship listed alphabetically by last name (except for 10-12) Corresponding author for 1-4, 7, 14

1. On the Sparsity of Optimal Linear Decision Rules for a Class of Robust Optimization Problems with Box Uncertainty Sets

Haihao Lu and Bradley Sturt Operations Research, 2025

2. Improving the Security of United States Elections with Robust Optimization

Braden L. Crimmins, J. Alex Halderman, Bradley Sturt Operations Research, 2024

3. The Value of Robust Assortment Optimization under Ranking-Based Choice Models Bradley Sturt

Management Science, 2024

4. A Nonparametric Algorithm for Optimal Stopping based on Robust Optimization Bradley Sturt

Operations Research, Vol. 71, No. 5, 2023

- Winner of the Roger J-B Wets Junior Researcher Paper Prize in Stochastic Programming, 2025
- Second Place in the INFORMS Junior Faculty Interest Group Paper Competition, 2021

5. A Data-Driven Approach to Multistage Stochastic Linear Optimization

Dimitris Bertsimas, Shimrit Shtern, Bradley Sturt Management Science, Vol. 69, No. 1, 2023

— Winner of the MIT ORC Student Paper Competition (awarded to Sturt), 2019

6. Group Fairness in Dynamic Refugee Assignment

Daniel Freund, Thodoris Lykouris, Elisabeth Paulson, Bradley Sturt, Wentao Weng Proceedings of the 24th ACM Conference on Economics and Computation (extended abstract), 2023

7. Dynamic Optimization with Side Information

Dimitris Bertsimas, Chris McCord, Bradley Sturt European Journal of Operational Research, Vol. 304, No. 2, 2023

8. Two-Stage Sample Robust Optimization

Dimitris Bertsimas, Shimrit Shtern, Bradley Sturt *Operations Research*, Vol. 70, No. 1, 2022

9. Computation of Exact Bootstrap Confidence Intervals: Complexity and Deterministic Algorithms

Dimitris Bertsimas and Bradley Sturt Operations Research, Vol. 68, No. 3, 2020

— 2nd Place in the INFORMS George Nicholson Paper Competition (awarded to Sturt), 2017

10. The Path Most Traveled: Travel Demand Estimation Using Big Data Resources

Jameson Toole, Serdar Colak, Lauren Alexander, Bradley Sturt, Alexandre Evsukoff, Marta González Transportation Research Part C: Emerging Technologies, Vol. 58, 2015

11. Personalized Entity Recommendation in Heterogeneous Information Networks with Implicit User Feedback

Xiao Yu, Xiang Ren, Yizhou Sun, Quanquan Gu, Bradley Sturt, Urvashi Khandelwal, Brandon Norick, Jiawei Han

Proceedings of the 7th ACM Intl. Conference on Web Search and Data Mining, 2014

— Winner of the Test of Time Paper Award in WSDM'24

12. HeteRec: Entity Recommendation in Heterogeneous Information Networks with Implicit User Feedback

Xiao Yu, Xiang Ren, Yizhou Sun, Bradley Sturt, Urvashi Khandelwal, Quanquan Gu, Brandon Norick, Jiawei Han

Proceedings of the 7th ACM Conference on Recommender Systems, 2013

Working Papers

13. Group Fairness in Dynamic Refugee Assignment

Daniel Freund, Thodoris Lykouris, Elisabeth Paulson, Bradley Sturt, Wentao Weng

14. The Blessing of Strategic Customers in Personalized Pricing

Zhi Chen, Bradley Sturt, Weijun Xie

Patents

1. Single-Ballot Logic and Accuracy Testing

Bradley Sturt, J. Alex Halderman, Braden L. Crimmins U.S. Patent Application No. 18/905,050, filed April 3, 2025.

2. Robust Election Logic and Accuracy

Braden L. Crimmins, J. Alex Halderman, Bradley Sturt. U.S. Patent Application No. 18/394,391, filed June 27, 2024.

| Invited | 2025 | | | |
|------------|---|------------------------|--|--|
| Seminar & | Oxford, Saïd Business School, Operations and Technology Management | June 2025 | | |
| Workshop | University of Maryland, Workshop on AI and Analytics for Social Good | May 2025 | | |
| Talks | CUHK, Systems Engineering and Engineering Management | May 2025 | | |
| | UCLA, Anderson School of Management, Decisions Operations & Technology Management | ement April 2025 | | |
| | 2024 | | | |
| | 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 Privacy and Cryptography | June 2024 | | |
| | University of Illinois Chicago, Workshop on Frontiers of AI in Business and Society | May 2024 | | |
| | 2023 | | | |
| | Robust Optimization Webinar | December 2023 | | |
| | INSEAD, Workshop on Information and Learning in Decisions and Operations | July 2023 | | |
| | | | | |
| | Northwestern University Industrial Engineering and Management Science | Contombon 2000 | | |
| | Northwestern University, Industrial Engineering and Management Science | September 2022 | | |
| | Virginia Tech, Industrial and Systems Engineering University of Illinois Chicago, Business Analytics Organization Speaker Series | May 2022 April 2022 | | |
| | University of finnois Chicago, Business Analytics Organization Speaker Series | April 2022 | | |
| | 2021 | | | |
| | Washington University in St. Louis, Olin Business School | $November\ 2021$ | | |
| | University of Texas Austin, Operations Research and Industrial Engineering | November 2021 | | |
| | 2020 | | | |
| | Robust Optimization Webinar | $November\ 2020$ | | |
| | University of Wisconsin Madison, Industrial and Systems Engineering | January 2020 | | |
| | 2019 | | | |
| | University of Michigan, Industrial and Operations Engineering | December 2019 | | |
| | Indiana University, Kelley School of Business | December 2019 | | |
| | University of Illinois 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, ML Research Seminar Series | $November\ 2019$ | | |
| | CMU Tepper School of Business, YinzOR Workshop | August~2019 | | |
| | MIT, Operations Research Center | $September\ 2019$ | | |
| | Technion Industrial Engineering, Quant Seminar | January 2019 | | |
| | BIRS Workshop on "Models and Algorithms for Sequential Decision-Making under Uncertainty", Banff | January 2019 | | |
| | under Oncervanity, Baini | | | |
| Conference | INFORMS Annual Meeting, Atlanta | October 2025 | | |
| Talks | International Conference on Stochastic Programming (ICSP), Paris | $August\ 2025$ | | |
| | INFORMS Applied Probability Conference, Atlanta | $June\ 2025$ | | |
| | INFORMS Annual Meeting, Seattle | October 2024 | | |
| | International Symposium on Mathematical Programming (ISMP), Montreal | July 2024 | | |
| | Election Verification Network Conference, Washington DC | March 2024 | | |
| | International Conference on Stochastic Programming (ICSP), Davis | July 2023 | | |
| | Statewide Certification Testing of Election Systems National Conference, Huntsville | June 2023 | | |
| | SIAM Conference on Optimization (OP23), Seattle | June 2023 | | |
| | INFORMS Annual Meeting, Indianapolis INFORMS Royanua Managament and Pricing (RMP) Section Conference, Virtual | October 2022 | | |

INFORMS Revenue Management and Pricing (RMP) Section Conference, Virtual

INFORMS Annual Meeting, Virtual

 $June\ 2022$

October 2021

| | SIAM Conference on Optimization (OP21), Virtual INFORMS Annual Meeting, Virtual International Conference on Continuous Optimization (ICCOPT), Berlin INFORMS Annual Meeting, Seattle INFORMS Annual Meeting, Phoenix International Symposium on Mathematical Programming (ISMP), Bordeaux INFORMS Annual Meeting, Houston | July 2021 October 2020 August 2019 October 2019 November 2018 August 2018 October 2017 | |
|-------------------------------------|--|---|--|
| Instructor | University of Illinois Chicago IDS 532, Introduction to Operations Management (Instructor Evaluation: 4.73/5) IDS 435, Optimization for Analytics (Instructor Evaluation: 4.48/5) IDS 532, Introduction to Operations Management (Instructor Evaluation: 4.67/5) IDS 532, Introduction to Operations Management (Instructor Evaluation: 4.67/5) IDS 532, Introduction to Operations Management (Instructor Evaluation: 4.72/5) IDS 516, Data Analytics for Business Professionals (Instructor Evaluation: 4.80/5) IDS 270, Statistics I for Business Scholars (Instructor Evaluation: 4.19/5) IDS 472, Business Data Mining (Instructor Evaluation: 4.77/5) IDS 270, Statistics I for Business Scholars (Instructor Evaluation: 4.75/5) IDS 472, Business Data Mining (Instructor Evaluation: 4.61/5) IDS 270, Statistics I for Business Scholars (Instructor Evaluation: 4.38/5) | Spring 2025 Spring 2025 Fall 2024 Spring 2024 Fall 2023 Fall 2022 Fall 2022 Spring 2022 Fall 2021 Fall 2021 Spring 2021 Spring 2021 Fall 2020 | |
| TEACHING ASSISTANT | Massachusetts Institute of Technology 15.097, Robust Optimization (TA Evaluation: 6.5/7) 15.778, Introduction to Operations Management (TA Evaluation: 6.7/7) 15.093, Optimization Methods (TA Evaluation: 7.0/7) 15.060, Data Models and Decisions (TA Evaluation: 6.7/7) | Spring 2019 Summer 2018 Fall 2017 Fall 2016 | |
| Journal Reviewer | Management Science, Operations Research, Manufacturing & Service Operations Management, Mathematics of Operations Research, SIAM Journal on Optimization, Mathematical Programming, Production and Operations Management, INFORMS Journal on Optimization, Journal of Optimization Theory and Applications | | |
| 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 | |
| UIC ACTIVITIES | UIC Business AI Council Member UIC Information and Decision Sciences Seminar Organizer 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 | 2025-Present Spring 2025 May 2024 Summer 2024 October 2023 2023-Present | |