Anna Deza

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Current Georgia Institute of Technology

Ronald J. and Carol T. Beerman Postdoctoral Fellow in the H. Milton Stewart School

of Industrial & Systems Engineering

Mentor: Santanu S. Dey

EDUCATION University of California, Berkeley

Doctor of Philosophy Industrial Engineering & Operations Research 2020 – 2025

Thesis title: Scaling Mixed-Integer Optimization for Machine Learning Problems

Advisor: Alper Atamtürk

University of Toronto

Bachelor of Applied Science in Engineering Science, Machine Intelligence 2016 – 2020

Graduation with High Honours

Advisor: Merve Bodur

RESEARCH Two-Phase Framework for Nonlinear Mixed Integer Programs with Indicators

A. Deza, A. Gómez, A. Atamtürk. To Be Submitted

Sum of Squares Submodularity

A. Deza, G. Hall. Submitted

Fair and Accurate Regression: Strong Formulations and Algorithms

A. Deza, A. Gómez, A. Atamtürk. Submitted

Safe Screening for Logistic Regression with $\ell_0 - \ell_2$ Regularization

A. Deza, A. Atamtürk. KDIR, 2022. (Won Best Paper Award)

Simulating Polyculture Farming to Learn Automation Policies for Plant Diversity and Precision Irrigation

Y. Avigal, W. Wong, M. Presten, M. Theis, S. Aeron, A. Deza, S. Sharma, R. Parikh, S. Oehme, S. Carpin, J. Viers, S. Vougioukas, K. Goldberg. *IEEE T-ASE*, 2022

Learning Seed Placements and Automation Policies for Polyculture Farming with Companion Plants

Y. Avigal, A. Deza, W. Wong, S. Oehme, M. Presten, M. Theis, J. Chui, P. Shao, H. Huang, A. Kotani, S. Sharma, R. Parikh, M. Luo, S. Mukherjee, S. Carpin, J. Viers, S. Vougioukas, K. Goldberg. *ICRA*, 2021

Distance Between Vertices of Lattice Polytopes

A. Deza, A. Deza, Z. Guan, L. Pournin. Optimization Letters, 2020

ACADEMIC ICCOPT, Los Angeles

Presentations

ICCOPT, Los Angeles
MIP Poster Competition, Minneapolis
July 2025
June 2025

Machine Learning NeEDS Mathematical Optimization Seminar, Virtual February 2025 Optimization Workshop: Theory, Algorithms, and Applications Poster, Bogotá December 2024

INFORMS Annual Meeting, Seattle October 2024 ISMP, Montréal July 2024

MIP Poster Competition, Lexington June 2024

	AI4OPT Poster Competition, Berkeley INFORMS Annual Meeting, Phoenix Workshop on Recent Advances in Optimization, Fields Institute, Toronto KDIR 2022, Valletta (Virtual) INFORMS Annual Meeting, Indianapolis AI4OPT Institute, Virtual MIP Poster Competition, Rutgers CORS Annual Conference, Virtual INFORMS Annual Meeting, Virtual	April 2024 October 2023 December 2022 October 2022 October 2022 September 2022 May 2022 June 2021 November 2020
RESEARCH EXPERIENCE	NSF AI Institute for Advances in Optimization University of California, Berkeley Host: Alper Atamtürk	Spring 2022 – 2025
	AUTOLAB University of California, Berkeley Host: Ken Goldberg	Summer 2020
	CEAR Lab Technion - Israel Institute of Technology Host: Amir Degani	Summer 2019
	Discrete Optimization Team RIKEN Advanced Intelligence Project, Tokyo Host: Takanori Maehara	Summer 2018
	Laboratoire de Recherche en Informatique Université Paris-Sud Host: Yannis Manoussakis	Summer 2017
Teaching Experience	Graduate Student Instructor: IEOR262A: Mathematical Programming I Graduate Student Instructor: IEOR142: Introduction to Machine Learning	Fall 2022 g Fall 2021
Fellowship and Awards	ISyE Postdoctoral Named Fellowship KDIR 2022 Best Paper Award MIP 2022 Most Popular Poster Award UC Berkeley IEOR Department Fellowship INFORMS Undergraduate Operations Research Prize Finalist MITACS Globalink Research Award ESROP - Global Award Engineering Science Chair's Scholarship Exceptional Opportunity Award Dean's Merit Award Dean's Honor List	2025 2022 2022 2020 2020 2019 2019 2018 2017 2017 2016-2020
Skills	Languages: English, French, Hebrew Computational: Python, Julia, Gurobi, Mosek	
SERVICE AND LEADERSHIP	AI4OPT Student Leadership Council Co-Chair IEOR First Year PhD Mentorship Mentor INFORMS UC Berkeley Student Chapter Organizer	2022 - 2025 $2023 - 2025$ $2023 - 2024$