

Rui Gong

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RESEARCH INTERESTS	Semidefinite Optimization and its application to Combinatorial Optimization, Convex Optimization and other areas.	
EDUCATION	Georgia Institute of Technology	Atlanta, Georgia, U.S.A.
	<i>PhD in Operation Research</i>	2023.08-2027.08 (expected)
	<ul style="list-style-type: none">• Advisor: Diego Cifuentes, Alejandro Toriello	
	<ul style="list-style-type: none">• Passed Comprehensive Exams	
	<ul style="list-style-type: none">• GPA: 4.0/4.0	
	University of Waterloo	Waterloo, Ontario, Canada
	<i>M.Math. in Combinatorics & Optimization</i>	2021.09-2023.06
	<ul style="list-style-type: none">• Thesis: Low-Rank Plus Sparse Decompositions of Large-Scale Matrices via Semidefinite Optimization	
	<ul style="list-style-type: none">• Advisor: Levent Tuncel	
	<ul style="list-style-type: none">• Passed C&O PhD first stage comprehensive exams: Continuous Optimization, Graph Theory	
	University of Waterloo	Waterloo, Ontario, Canada
	<i>B.Math. Triple Major in Mathematical Finance, Mathematical Optimization, Statistics</i>	2017.09-2021.08
	<ul style="list-style-type: none">• Dean's Honour List	
	<ul style="list-style-type: none">• Grad-Level GPA: 94.67/100	
SCHOLARSHIPS & AWARDS	Georgia Institute of Technology	
	<i>Ronald & Carol Beerman Fellowship</i>	2024-2025
	<i>ISyE Premium Fellowship</i>	
	<i>Ronald & Carol Beerman Fellowship</i>	2023-2024
	University of Waterloo	
	<i>Math Domestic Graduate Student Award</i>	2022-2023
	<i>Sinclair Graduate Scholarship</i>	2023.01-2023.04
	<i>Sinclair Graduate Scholarship</i>	2022.09-2022.12
	<i>C & O Graduate Award</i>	2022.01-2022.04
	<i>Sinclair Graduate Scholarship</i>	2022.01-2022.04
RESEARCH	<i>President's Scholarship of Uwaterloo</i>	2017
	<i>Rounding the Lovász Theta Function with a Value Function Approximation</i> (submitted), Rui Gong, Diego Cifuentes, Alejandro Toriello.	

SEMINARS

Talks:

Value Function Approximation for Maximum Stable Set Problem, Combinatorial Optimisation and Graph Theory Session, International Symposium on Mathematical Programming (ISMP 2024), Montréal, Canada. July 26, 2024

Value Function Approximation for Maximum Stable Set Problem, First Year PhD Seminar, ISyE, Georgia Institute of Technology. February 23, 2024

Low-Rank Plus Sparse Decompositions of Large-Scale Matrices via Semidefinite Optimization, MMATH Thesis Talk, Department of Combinatorics & Optimization, Faculty of Mathematics, University of Waterloo. May 3, 2023

Convex Optimization, Factor Analysis and Realizability of a Subspace, Graduate Research Seminar, Department of Combinatorics & Optimization, Faculty of Mathematics, University of Waterloo. April 11, 2022

Posters:

Rounding the Lovasz Theta Function with a Value Function Approximation, Mixed Integer Programming Workshop 2024, Poster Finalist, University of Kentucky. March 4, 2024

Workshops:

Attendee: Fulkerson 100, University of Waterloo. July 17-19, 2024.

Algorithms, Combinatorics and Optimization Research Network (ACORN) Meeting 2023, Georgia Institute of Technology. March 9–11, 2023

24th Midwest Optimization Meeting & Workshop on Large Scale Optimization and Applications, University of Waterloo. October 28-29, 2022

WORK EXPERIENCE

Intact Financial Corporation

Toronto, Canada

Actuarial Analyst of Ontario PL Pricing

2020.01 - 2020.04

Extracted and manipulated databases to respond to internal inquiries by SAS. Generated earning and loss reports weekly and monthly by Excel and SAS. Analyzed correctness of rates for insurance premium algorithm with R.

TEACHING

Teaching Assistant

University of Waterloo

- Undergraduate course: Portfolio Optimization (CO372) 2021.09-2022.04;
2022.09-2022.12

Holding office hours, marking assignments and exams.

- Graduate course: Semidefinite Programming (CO471/671) 2022.05-2022.08
Marking assignments.

TECHNICAL STRENGTHS

Language Proficiency: Native Chinese Speaker, Proficient in English

Programming Languages: Julia, Python, Matlab, R, C++, \LaTeX