

# PHILIPPE OLIVIER

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CONTRACT WORK	<b>pganalyze</b>	08/2022–Now
	<ul style="list-style-type: none"><li>• Role: Research &amp; Development Scientist</li><li>• Optimizing and automating index selection in databases</li></ul>	
	<b>Tribe AI</b>	07/2024–02/2025
	<ul style="list-style-type: none"><li>• Role: Operations Research Scientist</li><li>• Job scheduling tool for the automotive industry</li><li>• Used by Keyloop in several hundred workshops around the world</li></ul>	
	<b>Integrated Reasoning</b>	06/2023–07/2024
	<ul style="list-style-type: none"><li>• Role: Scientific Advisor</li><li>• Operations research, modeling, and optimization</li></ul>	
	<b>Kaster</b>	10/2023–05/2024
	<ul style="list-style-type: none"><li>• Role: Applied Research Scientist</li><li>• Production planning and scheduling for pharmaceutical products</li></ul>	
EDUCATION	<b>Polytechnique Montréal</b>	08/2016–05/2021
	PhD, Computer Engineering	
	<b>Université Laval</b>	08/2012–05/2016
	BSc, Computer Science	
RESEARCH	<b>INTERESTS</b>	
	<ul style="list-style-type: none"><li>• Operations research</li><li>• Constraint programming</li><li>• Integer programming</li></ul>	
	<b>PUBLICATIONS</b>	
	<b>Fairness over Time in Dynamic Resource Allocation with an Application in Healthcare</b>	
	Lodi, A., Olivier, P., Pesant, G., and Sankaranarayanan S.	
	<i>Mathematical Programming</i> (2022)	
	<b>Measures of Balance in Combinatorial Optimization</b>	
	Olivier, P., Lodi, A., and Pesant, G.	
	<i>4OR</i> (2021)	
	<b>The Quadratic Multiknapsack Problem with Conflicts and Balance Constraints</b>	
	Olivier, P., Lodi, A., and Pesant, G.	
	<i>INFORMS Journal on Computing</i> (2020)	
	<b>A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems</b>	
	Olivier, P., Lodi, A., and Pesant, G.	
	<i>Integration of AI and OR Techniques in Constraint Programming, Delft, Netherlands, (CPAIOR 2018)</i> (2018)	

**CONFERENCE PRESENTATIONS**

<b>PGCon 2023 (Ottawa, Canada)</b>	06/2023
Automating Index Selection Using Constraint Programming	
<b>JOPT 2023 (Montreal, Canada)</b>	05/2023
Optimizing Database Index Selection Using Constraint Programming	
<b>CPAIOR 2018 (Delft, Netherlands)</b>	06/2018
A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems	
<b>JOPT 2018 (Montreal, Canada)</b>	05/2018
A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems	
<b>IFORS 2017 (Quebec, Canada)</b>	07/2017
Solving the Wedding Seating Problem by Constraint Programming	

**POSTER PRESENTATIONS**

<b>CP 2019 (Stamford, United States)</b>	10/2019
Measures of Balance in Combinatorial Optimization	

**MEMBER**

<b>Laboratoire Quosséca</b>	08/2016–05/2021
<b>Canada Excellence Research Chair in Data Science for Real-Time Decision-Making</b>	08/2016–05/2021

**TEACHING****COURSE LECTURER****Polytechnique Montréal**

• INF1005D: Procedural Programming in Python	01/2023–05/2023
• INF1005D: Procedural Programming in Python	08/2022–12/2022
• INF1005D: Procedural Programming in Python	08/2021–12/2021

**Université du Québec à Montréal**

• INF1070: Administration of Computer Systems (two classes)	08/2022–12/2022
• INF1070: Administration of Computer Systems	01/2022–04/2022

**TEACHING ASSISTANT****Polytechnique Montréal**

• INF4705/INF8775: Algorithm Design	01/2018–12/2019
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**Université Laval**

08/2013–12/2013

**PROJECTS****Fantasy Solver**

06/2021–Now

Multi-objective solver for optimal lineup generation in multi-entry *Daily Fantasy Sports* (DFS) tourneys. It is, to my knowledge, the only exact solver for generating provably optimal sets of lineups for DFS tourneys.