Philippe Olivier

Philippe.Olivier@polymtl.ca • 514.433.5700 • github.com/PhilippeOlivier

EDUCATION

Polytechnique Montréal
PhD, Computer Engineering — Aug. 2016 – May 2021
- Thesis: Fairness in Combinatorial Optimization
- Research supervisors: Gilles Pesant and Andrea Lodi

Université Laval
B.S., Computer Science — Aug. 2012 – May 2016

RESEARCH EXPERIENCE

Research Interests
- Operations research
- Combinatorial optimization
- Constraint programming
- Integer programming

Publications

Lodi, A., Olivier, P., Pesant, G., and Sankaranarayanan S. (2022) "Fairness over Time in Dynamic Resource Allocation with an Application in Healthcare". *Mathematical Programming*.

Olivier, P., Lodi, A., and Pesant, G. (2021) "Measures of Balance in Combinatorial Optimization". *4OR*.

Olivier, P., Lodi, A., and Pesant, G. (2020) "The Quadratic Multiknapsack Problem with Conflicts and Balance Constraints". *INFORMS Journal on Computing*.

Olivier, P., Lodi, A., and Pesant, G. (2018) "A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems". In *Integration of AI and OR Techniques in Constraint Programming, Delft, Netherlands, (CPAIOR 2018)*.

Conference Presentations

CPAIOR 2018 (Delft, Netherlands) — June 2018
A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems

JOPT 2018 (Montreal, Canada) — May 2018
A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems

IFORS 2017 (Quebec, Canada) — July 2017
Solving the Wedding Seating Problem by Constraint Programming

Poster Presentations

CP 2019 (Stamford, United States) — Oct. 2019
Measures of Balance in Combinatorial Optimization

Member

Laboratoire Quosséça — Aug. 2016 – May 2021

Canada Excellence Research Chair in Data Science for Real-Time Decision-Making — Aug. 2016 – May 2021

TEACHING EXPERIENCE

Université du Québec à Montréal
Course Lecturer
- INF1070: Administration of Computer Systems — Jan. 2022 – May 2022
  Commands, applications, and management of a Linux system.

Polytechnique Montréal
Course Lecturer
- INF1005D: Procedural Programming in Python — Sept. 2021 – Dec. 2021
  Introduction to Python programming.

Teaching Assistant
- INF4705/INF8775: Algorithm Design — Jan. 2018 – Dec. 2019
  Asymptotic notation, complexity classes, algorithm design patterns, metaheuristics.

Université Laval
Teaching Assistant — Sept. 2013 – Dec. 2013

WORK EXPERIENCE

Hydro-Québec TransÉnergie
Intern — Sept. 2014 – Apr. 2015
Automating the data transfer between a database and specialized software. Automating some of the tests done by electrical engineers.

PROJECTS

Fantasy Solver
DFS Solver — June 2021 – Now
Solver for optimal lineup generation in multi-entry *Daily Fantasy Sports* (DFS) tourneys. It is, to my knowledge, the only exact solver for generating a provably optimal set of lineups for DFS tourneys.