

LÉO BOISVERT

514-971-8555 ◇ leo.boisvert@hotmail.ca

Montreal, Canada

github: [jardinetsouffleton](#) ◇ website: [leo-boisvert.com](#)

EDUCATION

Polytechnique Montréal + MILA PhD in Computer Engineering	2024 -
Polytechnique Montréal M.Sc. in Computer Engineering	2022 - 2024
Université de Montréal B.Sc. in Mathematics	2016 - 2020

TECHNICAL SKILLS

Research Areas	Web Agents, LLMs
Languages	French, English

EXPERIENCE

ServiceNow Research <i>Visiting Researcher</i>	March 2024 - Present
<ul style="list-style-type: none">• Led development of WorkArena++, focusing on large-scale AI systems and LLM-based web agents• Designed representative tasks for knowledge workers on web platforms• Collaborated with research teams on developing and evaluating web agent capabilities	
Polytechnique Montréal <i>Master's Research</i>	Sept 2022 - Jan 2023
<ul style="list-style-type: none">• Conducted structured research in phases: literature review, code development, and results analysis• Applied project management skills to organize and execute research objectives• Developed theoretical frameworks for academic research applications	
Comité de consultation en gestion Polytechnique <i>Consultant</i>	Sept 2023 - Dec 2023
<ul style="list-style-type: none">• Led technical optimization of truck routes for Intelcom, achieving 50-75% reduction in required trucks• Developed route optimization program and visualization tools for result interpretation• Managed incomplete data challenges while maintaining project deliverables	
Polytechnique Montréal <i>Lead Developer - SeaPearl.jl</i>	Sept 2022 - Aug 2023
<ul style="list-style-type: none">• Led development of reinforcement learning-based constraint programming solver• Increased test coverage by 15% and created comprehensive documentation• Mentored two interns and grew project visibility to 90 GitHub stars	
Newtrax Technologies <i>Team Lead, Data Science</i>	Jan 2021 - Jun 2022
<ul style="list-style-type: none">• Led data science product lifecycle from concept to production• Established system-level reliability tests achieving 99.99% prediction accuracy• Grew team's product line from 2 to 10 products• Set up company's first system-level reliability tests	

Newtrax Technologies

Sept 2019 - Jan 2021

Data Scientist

- Developed first activity detection products with 99% prediction accuracy
- Managed end-to-end product development including DevOps aspects
- Established coding standards and test practices for growing team

DIREXYON Technologies

May 2018 - Apr 2019

Consultant in Modeling and Simulation

- Developed strategic maintenance model for urban infrastructure
- Reduced costs by 30% while maintaining asset availability
- Implemented optimization algorithms for resource allocation

PUBLICATIONS

JOURNAL ARTICLES

Learning and fine-tuning a generic value-selection heuristic inside a constraint programming solver

Constraints 2024

Marty, Tom*, **Boisvert, Léo***, François, Tristan, Tessier, Pierre, Gautier, Louis, Rousseau, Louis-Martin, Cappart, Quentin

CONFERENCE PAPERS

WorkArena++: Towards Compositional Planning and Reasoning-based Common Knowledge Work Tasks

NeurIPS 2024

Boisvert, Léo, Thakkar, Megh, Gasse, Maxime, Caccia, Massimo, Le Sellier De Chezelles, Thibault, Cappart, Quentin, Chapados, Nicolas, Lacoste, Alexandre, Drouin, Alexandre

Towards a Generic Representation of Combinatorial Problems for Learning-Based Approaches

CPAIOR 2024

Boisvert, Léo, Verhaeghe, Hélène, Cappart, Quentin

WORKSHOP PAPERS

AgentMerge: Enhancing Generalization in Fine-Tuned LLM Agents

NeurIPS Workshop on Adaptive Foundation Models 2024

Thakkar, Megh, **Boisvert, Léo**, Le Sellier De Chezelles, Thibault, Piché, Alexandre, Gasse, Maxime, Lacoste, Alexandre, Caccia, Massimo

Fine-Tuning Web Agents: It Works, But It's Trickier Than You Think

NeurIPS Workshop on Open-World Agents 2024

Caccia, Massimo, Thakkar, Megh, **Boisvert, Léo**, Le Sellier De Chezelles, Thibault, Piché, Alexandre, Chapados, Nicolas, Drouin, Alexandre, Gasse, Maxime, Lacoste, Alexandre

WorkArena: How Capable are Web Agents at Solving Common Knowledge Work Tasks?

ICLR Workshop on LLM Agents 2024

Drouin, Alexandre, Gasse, Maxime, Caccia, Massimo, Laradji, Issam H., Del Verme, Manuel, Marty, Tom, **Boisvert, Léo**, Thakkar, Megh, Cappart, Quentin, Vazquez, David, Chapados, Nicolas, Lacoste, Alexandre

PREPRINTS

The BrowserGym Ecosystem for Web Agent Research

arXiv 2024

Le Sellier De Chezelles, Thibault, Gasse, Maxime, Lacoste, Alexandre, Drouin, Alexandre, Caccia, Massimo, **Boisvert, Léo**, Thakkar, Megh, Marty, Tom, Assouel, Rim, Omid Shayaneghan, Sahar, Jang, Lawrence Keunho, Lù, Xing Han, Yoran, Ori, Kong, Dehan, Xu, Frank F., Reddy, Siva, Cappart, Quentin, Neubig, Graham, Salakhutdinov, Ruslan, Chapados, Nicolas

ACADEMIC TALKS

CONFERENCE PRESENTATIONS

CPAIOR 2024 - Generic representation of combinatorial problems

May 2024

Uppsala, Sweden

CORS-JOPT 2024 - Generic representation of CP problems

May 2024

HEC Montréal, Canada

CORS-JOPT 2023 - End-to-end learning in CP problems using GNNs

May 2023

HEC Montréal, Canada

CIM 2022 - Data science for underground mining

May 2022

Vancouver, Canada

Québec Mines et Énergie 2021 - Production tracking software for UG mining

November 2021

Québec, Canada

INVITED TALKS

ML4CP Summer School - Learning optimization heuristics with SeaPearl.jl

July 2023

Leuven, Belgium

SCIENCE POPULARIZATION

Public Libraries in Montreal - L'IA de l'antiquité à chatGPT

Feb 2025

Intro to AI lecture + tutorial -in French Montreal, Canada

ACADEMIC SERVICE

TEACHING

Teaching Assistant - INF 6102 Metaheuristics

Winter 2023

Polytechnique Montréal

Developed course materials and led tutorial sessions for graduate-level optimization course

REVIEWS

Conference Reviews

AAAI Conference on Artificial Intelligence

2025

NowAI - ServiceNow AI conference

2024

HONORS AND SCHOLARSHIPS

MITACS PhD Fellowship - 160,000\$ over 4 years

2024 - 2028

MT180, 3rd place - Scientific communication competition

2023