

PEDRAM FARGHADANI

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RESEARCH INTERESTS

- Integer Programming
- Robust Optimization
- Reinforcement Learning
- Machine Learning for OR
- Stochastic Programming
- Dynamic Programming

APPLICATION AREAS

- Supply chain management
- Scheduling in supply chains
- Logistics and distribution
- Decision making under uncertainty
- Environmental management
- Healthcare

EDUCATION

Ph.D. Candidate, Operations Research 2021 - Present
Concordia University, Montreal, QC

- Supervisors: Hossein Hashemi Doulabi, Walter Rei & Michel Gendreau
- GPA: 3.72/4.0

Masters Degree, Logistics and Supply Chain Management 2017 - 2020
Amirkabir University of Technology

- GPA: 19.31/20 (4.0/4.0)

Bachelors Degree, Industrial Engineering 2013 - 2017
Isfahan University of Technology

- GPA: 18.13/20 (3.86/4.0)

PUBLICATION

- **Farghadani-Chaharsooghi, P.**, Hashemi Doulabi, H., Rei, W., Gendreau, M. (2025). A Learning-Based Heuristic for Stochastic Casualty Response Planning with Hospital Evacuation. Will be submitted to *INFORMS Journal on Optimization*.
- **Farghadani-Chaharsooghi, P.**, Hashemi Doulabi, H., Rei, W., Gendreau, M. (2025). Stochastic Dual Dynamic Programming for Multi-Stage Casualty Response Planning with Platelet Inventory Management. submitted to *INFORMS Journal on Computing*.
- **Farghadani-Chaharsooghi, P.**, Hashemi Doulabi, H., Rei, W., Gendreau, M. (2024). Stochastic Casualty Response Planning with Multiple Classes of Patients. *Computers & Operations Research*, Under 1st revision.
- **Farghadani-Chaharsooghi, P.**, & Karimi, B. (2023). A robust optimization approach for the production-routing problem with lateral transshipment and outsourcing. *RAIRO-Operations Research*, 57(4), 1957-1981.
- **Farghadani-Chaharsooghi, P.**, Kamranfar, P., Mirzapour Al-e-Hashem, M. S., & Rekik, Y. (2022). A joint production-workforce-delivery stochastic planning problem for perishable items. *International Journal of Production Research*, 60(20), 6148-6172.
- Majidi, A., **Farghadani-Chaharsooghi, P.**, & Mirzapour Al-e-Hashem, S. M. J. (2022). Sustainable pricing-production-workforce-routing problem for perishable products by considering demand uncertainty; a case study from the dairy industry. *Transportation Journal*, 61(1), 60-102.

- Dehghanpour-Amniyeh, P., **Farghadani-Chaharsooghi, P.**, Rasti-Barzoki, M., (2019), Supply Chain and Project Management Contracts, *Isfahan University of Technology Publication Center*, (A 170-page book).

PRESENTATIONS

- "Stochastic Casualty Response Planning with Operational Details" with Hossein Hashemi Doulabi, Walter Rei, and Michel Gendreau, *CORS / Optimization Days*, Montréal, Canada, May 29-31, 2023.

WORKING AND RESEARCH EXPERIENCE

Teaching Assistant and Lab Demonstrator

Fall 2024, Winter 2025

Concordia University, Montreal, QC

- Assisted Prof. Gerard Gouw in delivering and managing labs for the course *INDU412-Human Factors Engineering*, ensuring the smooth execution of laboratory sessions.
- Served as a teaching assistant for *INDU6231-Scheduling Theory* and *INDU6521-Quantitative Methods in Health-care Systems*, under the supervision of Prof. Hossein Hashemi Doulabi, providing support to students in their coursework and projects.

Journal Reviewer

2021 - Present

International Journal of Production Research & Scientific Reports

- Reviewed manuscripts submitted to the journal, providing insightful feedback to improve the quality of research publications.
- Ensured the accuracy and rigor of published research.

Software Trainer

April 2019 - July 2019

FaraDars Educational Institution

- Developed and designed an online course titled "How to balance a Production/Assembly line using the Flexible Line Balancing (FLB) Software".
- Successfully attracted and facilitated the enrollment and completion of 900+ students in the course.

COMPUTER SKILLS

★ Optimization Software:	CPLEX, Gurobi, GAMS, LINGO
★ Programming:	C++, Python, Matlab
★ Database Management:	SQL, MySQL, PostgreSQL
★ Others:	Microsoft Office (Word, Excel, PowerPoint, Visio), FLB (Flexible Line Balancing)

HONORS AND AWARDS

Doctoral scholarships of excellence – Final stages (\$7,500) 2025
CIRRELT, Montreal, QC, Canada

Rendez-vous En route de Propulsion Québec Contest Winner (\$2,000) 2024
Réseau de transport de Longueuil (RTL), Longueuil, QC, Canada

Awarded first place in the Rendez-vous En route de Propulsion Québec contest for our innovative solution optimizing electric bus scheduling and charging station planning.

Gervaise-Cimon Scholarship (\$1,000) 2024
CIRRELT, Montreal, QC, Canada

Doctoral scholarships of excellence – Early stages (\$4,000) 2023
CIRRELT, Montreal, QC, Canada

Concordia University Doctoral Graduate Fellowship (\$23,000) Concordia University, Montreal, QC, Canada	2021 - Present
Concordia University International Tuition Award of Excellence (\$40,656) Concordia University, Montreal, QC, Canada	2021 - Present
Distinguished Master of Science Graduate Award Amirkabir University of Technology	2020
Ranked 1 st among 89 M.Sc. students of the Industrial Engineering Department who started their graduate studies in the academic year of 2017-2018.	
Distinguished Bachelor of Science Undergraduate Award Isfahan University of Technology	2017
Ranked 2 nd among 59 B.Sc. students of the Industrial Engineering Department who started their undergraduate studies in the academic year of 2013- 2014.	

EXTRA-CURRICULAR AND VOLUNTEER EXPERIENCE

CIRRELT Student Committee <i>CIRRELT, University of Montreal, Montreal, QC, Canada</i>	2023 - Present
<ul style="list-style-type: none"> Organize professional and social activities for master's, doctoral students, and postdoctoral fellows. Managed a dynamic Foosball Tournament for 12 teams and coordinated a dart league for 14 participants. 	
Academic Mentor at Morocco Solidarity Hackathon Montreal Institute for Learning Algorithms (MILA), Montreal, QC, Canada	September 2023
<ul style="list-style-type: none"> Played a pivotal mentoring role at the MILA-hosted <i>Morocco Solidarity Hackathon: AI to monitor natural disaster risks</i>. Guided two teams in refining ideas, developing models, and crafting concise project summaries. Contributed to the event's mission of harnessing AI for disaster relief and fundraising. 	
Welcome Crew Volunteer Student Success Centre, Concordia University, Montreal, QC, Canada	September 2022
<ul style="list-style-type: none"> Organized "Connect" and "Explore" events for newly admitted undergraduate and graduate students, coordinating orientation programs to foster connections, promote campus resources, and support academic success. 	

CERTIFICATIONS

Machine Learning A-Z: AI, Python & R 43 Total Hours - Online Training, Udemy	August 2024
Optimization 201 for Data Scientists Online Training, Gurobi	November 2023

LANGUAGE PROFICIENCY

- English: Fluent
- French: Intermediate (B1)
- Persian (Farsi): Native

REFERENCES

Hossein Hashemi Doulabi	Concordia University	hossein.hashemi@concordia.ca
Walter Rei	Université du Québec à Montréal	rei.walter@uqam.ca
Michel Gendreau	Polytechnique Montréal	michel.gendreau@polymtl.ca
Behrooz Karimi	Amirkabir University of Technology	b.karimi@aut.ac.ir