# Curriculum Vitae

Amirhossein Moosavi

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## *Education*

**University of Ottawa** — Sep 2019 – Aug 2023
*PhD in Management Science (Graduated with First Class Honors)* — *Ontario, Canada*

**Azad University** — Sep 2014 – Feb 2017
*MSc in Industrial Engineering (Graduated with First Class Honors)* — *Tehran, Iran*

**Azad University** — Sep 2009 – Jun 2014
*BSc in Industrial Engineering* — *Tehran, Iran*

## *Research Interest*

Healthcare management

Supply chain management

Advanced Analytics

Machine Learning

## *Award & Honor*

**University of Ottawa**

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| Thesis Presentation Competition (2nd place) | 2023 |
| PhD Engagement Award ($5,000) | 2023 |
| PhD Engagement Award ($5,000) | 2022 |
| International Ontario Graduate Scholarship ($15,000) | 2021 |
| Admission Scholarship ($18,000) | 2021-2023 |
| International Ontario Graduate Scholarship ($15,000) | 2020 |
| Excellence Scholarship ($10,000) | 2020 |
| International Doctoral Scholarship ($60,000) | 2019-2023 |

**Azad University**

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|---|---|
| Publication Award ($1,000) | 2020 |
| Publication Award ($1,000) | 2018 |
| Exempted from the PhD university entrance exam (GPA: 19.63/ 20) | 2017 |
| Best Thesis Award ($2,000) | 2017 |
| Selected as the best MSc student of the university out of more than 2000 MSc students | 2016 |

*Publications*

**Refereed Journal Article**

1. **Moosavi, A.**, Huang, S., Vahabi, M., Motamedivafa, B., Tian, N., Mahmood, R., Liu, P., Sun, C. (2024) [In press]. Prospective human validation of artificial intelligence interventions in cardiology: A scoping review. *JACC: Advances*. DOI.

2. **Moosavi, A.**, Ozturk, O., & Patrick, J. (2022). Staff scheduling for residential care under pandemic conditions: The case of COVID-19. *Omega* [IF=6.7], 112, 102671. DOI.

3. **Moosavi, A.**, & Ebrahimnejad, S. (2020). Robust surgery scheduling considering upstream and downstream units: A new two-stage heuristic algorithm. *Computers & Industrial Engineering* [IF=6.7], 143, 106387. DOI.

4. Nikfarjam, A., & **Moosavi, A.** (2020). An integrated $(1, T)$ inventory policy and vehicle routing problem under uncertainty: An accelerated Benders decomposition algorithm. *Transportation Letters* [IF=3.3], 13(2), 104-124. DOI.

5. **Moosavi, A.**, & Nikfarjam, A. (2019). A multi-path routing-inventory problem for a closed-loop supply chain considering the heterogeneous fleet of vehicles. *International Journal of Sustainable Engineering* [IF=3.6], 12(3), 174-188 DOI.

6. Erfani, B., Ebrahimnejad, S., & **Moosavi, A.** (2019). An integrated dynamic facility layout and job shop scheduling problem: A hybrid NSGA-II and local search algorithm. *Journal of Industrial and Management Optimization* [IF=1.2], 1317-1336 DOI.

7. Rezaei, N., Ebrahimnejad, S., **Moosavi, A.**, & Nikfarjam, A. (2019). A green vehicle routing problem with time windows considering the heterogeneous fleet of vehicles: Two metaheuristic algorithms. *European Journal of Industrial Engineering* [IF=1.9], 13(4), 507-535 DOI.

8. **Moosavi, A.**, & Ebrahimnejad, S. (2018). Scheduling of elective patients considering upstream and downstream units and emergency demand using robust optimization. *Computers & Industrial Engineering* [IF=6.7], 120, 216-233. DOI.

**In-Progress Article**

1. **Moosavi, A.**, Ozturk, O., & Patrick, J. Dynamic distributed ambulatory care scheduling. Under review in *Productions & Operations Management* - second revision, minor. [IF=4.8]

2. **Moosavi, A.**, Ozturk, O., & Patrick, J. Deep-learning assisted appointment scheduling under uncertainty. Under review in *European Journal of Operational Research*. [IF=6.7]

3. **Moosavi, A.**, Erfani, B., & Sauré, A. Storage location assignment problem for heterogeneous customers.

4. Luke, D., Liu, K., **Moosavi, A.**, Lavieri, M. Synchronizing multiple chronic conditions.

**Conference Article**

1. Nikfarjam, A., **Moosavi, A.**, Neumann, A., & Neumann, F. Computing High-Quality Solutions for the Patient Admission Scheduling Problem using Evolutionary Diversity Optimisation. *17th International Conference on Parallel Problem Solving from Nature*.
2. **Moosavi, A.**, & Ebrahimnejad, S. (2017). A new multi-objective mathematical model for supplier selection in uncertain environment. *13th International Conference on Industrial Engineering*.
3. **Moosavi, A.**, & Ebrahimnejad, S. (2017). Synchronous scheduling of elective and emergency patients at the operational decision-making level using robust optimization (in Persian). *First International Conference on Systems Optimization and Business Management*.

*Journal Review Experience*

*Expert Systems with Applications*, **one** submission refereed

*Computers & Industrial Engineering*, **ten** submissions refereed

*Production Planning & Control*, **two** submissions refereed

*Transportation Letters*, **three** submissions refereed

*International Journal of Logistics*, **three** submissions refereed

*International Journal of Systems Science*, **one** submission refereed

*Information Systems and Operational Research*, **three** submissions refereed

*International Journal of Sustainable Engineering*, **four** submissions refereed

*Invited Talk and Presentation*

1. Data-driven operating room planning and scheduling (presented by Christopher Sun). *Annual INFORMS Meeting 2024*.
2. Optimizing acceptance of out-of-sequence kidney offers (presented by Yili Wang). *Annual INFORMS Meeting 2024*.
3. Dynamic distributed ambulatory care scheduling. *INFORMS Healthcare Conference 2023*.
4. Deep-learning assisted appointment scheduling under uncertainty. *2023 CORS Conference*.
5. Residential care scheduling under pandemic conditions. *2022 CORS/INFORMS International Conference*.
6. Entropy-based Evolutionary Diversity Optimization for the Patient Admission Scheduling Problem. *2022 CORS/INFORMS International Conference*.

## *Work Experience*

**University of Michigan**

*Postdoctoral Researcher*, Michigan Institute for Data Science 2024-Present

*Staff*, Center for Healthcare Engineering & Patient Safety 2024-Present

**University of Ottawa**

*Postdoctoral Researcher*, Telfer School of Management 2024

*Instructor*, Applications of Statistical Methods in Business 2024

*Instructor*, Applications of Statistical Methods in Business 2022

*Teaching Assistant*, Applications of Statistical Methods in Business 2019-2023

**Azad University**

*Teaching Assistant*, Queuing Theory 2016

*Teaching Assistant*, Multi-Criteria Decision-Making Methods 2016

*Research Assistant* 2015-2018

- Developed mathematical models, heuristics and meta-heuristics
- Performed statistical analysis in Minitab and Design Expert
- Gave presentations at international and national conferences

## *Volunteer Experience*

**Mentorship**

*University of Michigan*, Yili Wang and Kuofu Liu 2024-Present

*University of Ottawa*, Azita Jafarbigloo and Sandra Amyot 2019-2021

*Azad University*, Behrad Erfani, and Adel Nikfarjam 2016-2019

**Conference Organizer/Chair**

*Annual INFORMS Meeting*, to organize a session in organ transplantation 2024

**Association Membership**

*University of Ottawa*, The Graduate Student's Association Board Director 2020-2021

**Charity Activity**

*Renault Pars*, Assistant for creating a charity mobile kindergarten in Iran 2017-2018

*Additional Skill*

**Programming knowledge**

*Python, MATLAB, GAMS, LaTeX*, expert knowledge

*C++, Java, R*, beginner knowledge

**Software knowledge**

*Minitab, Design Expert, EndNote, Microsoft Office*, expert knowledge

**Language**

Farsi (native), English (Fluent)

*Reference*

**Dr. Mariel Lavieri** Associate Professor
*Relationship: Supervisor (Postdoctoral) and co-author*
Tel: +1 (734) 647-0872 lavieri@umich.edu

**Dr. Amy Cohn** Full Professor
*Relationship: Supervisor (Postdoctoral) and co-author*
Tel: +1 (734) 763-5125 amycohn@umich.edu

**Dr. Antoine Sauré** Associate Professor
*Relationship: Supervisor (Postdoctoral) and co-author*
Tel: +1 (613) 979-5790 asaure@uOttawa.ca

**Dr. Jonathan Patrick** Full Professor
*Relationship: Supervisor (PhD) and co-author*
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Last updated: January 7, 2025
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