

MAHSA MOGHADDASS

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6 Eva road, Toronto, Ontario, Canada

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HIGHLIGHTS OF QUALIFICATIONS

- Strong in Data-Driven Optimization, Operations Research & Decision-Making Under Uncertainty.
- Ability to Translate Raw Data into Business Insights Using Data Analytics & Visualization.
- Expert in Predictive Analytics Using Machine Learning & Optimization Techniques.
- Highly Experienced in Recommender Systems (e.g., Predicting Customers Behaviors).
- Solid Knowledge and Experience in using C++, Python, SQL, Tableau, MS Office.
- Strong Analytical & Problem Solving Skills & Experience in Using Complex & Large Data Sets.
- Excellent Interpersonal Skill, Oral & Written Communication Skills in English and French.
- Ability to Work Both Independently & Collaboratively as an Effective Team Member.
- Time & Detail Oriented, Highly Motivated, Quick-Learner, Self-Driven, Multi-Task & Energetic.

WORK EXPERIENCE

Graduate Research Assistant, Data Scientist

May 2016 - April 2020

Data-Driven Operations Research Lab, Concordia University, Montreal, Canada

- Designed mathematical optimization & predictive models & algorithms to solve complex problems.
- Provided patterns or trends by data pre-processing, analytics, & visualization in Python, R, & Excel.
- Applied optimization & machine learning (supervised, unsupervised) to predict customers' preferences.
- Applied data-driven models & algorithms to optimize recommender systems & decision-making.
- Proposed a contextual-based recommender system platform to optimize new customers' choices .
- Worked with C++, Python (pandas, seaborn, matplotlib, sklearn), CPLEX , MS Office, Latex.

Instructor & Teaching Assistant

Sept 2016 - April 2020

Concordia University, Montreal, Canada

- Teaching Operations Research, Production Planning, Manufacturing Systems & Design, CPLEX.

Data Analyst

Jan 2015 - Feb 2016

KARPIRA International Recruitment Agency, Mashhad, Iran

- Provided data cleansing, analytics and visualization to recommend clients the best services.
- Communicated with suppliers and clients frequently to optimize their requirements.
- Worked with SQL & MS office.

Business Analyst, Marketing Consultant

Jan 2013 - Jan 2014

Grand Group Holding Company, Mashhad, Iran

- Provided marketing research & campaign & SWOT analysis for the company.
- Interacted with market & clients to update the systems continuously.
- Applied data visualization and analytics to provide business strategies.
- Helped the company know their customers and demands well and provide services based on their needs.
- Worked with SQL, MS Office & CRM.

VOLUNTEER EXPERIENCE

Mentorship Program Coordinator & Leader June 2018- Sept 2019
Mechanical, Industrial & Aerospace Engineering Dept, Concordia University *Montreal, Canada*

- Coordinated seminars, managed teams and mentored first-year Ph.D. students in the department.
- Organized high-level academic workshops, seminars, and events.

EDUCATION

Ph.D., Industrial Engineering (Operations Research), (GPA: 4.1/4.3) 2016 -Mar 2020
Gina Cody School of Engineering and Computer Science, Concordia University *Montreal, Canada*

- Thesis title: Inverse Integer Optimization With an Application in Recommender Systems.

M.Sc, Industrial Management (Production), (GPA: 17.30/20) 2011 – 2013
Department of Economics and Business Administration, Ferdowsi University *Mashhad, Iran*

- Thesis title: Optimization and Prioritization of Maintenance Strategies Using Interval AHP & LP.

B.Sc, Business Administration, (GPA: 18.05/20) 2007 – 2011
Department of Economics and Business Administration, Ferdowsi University *Mashhad, Iran*

SKILLS

Software Skills

C++, Python, SQL, CPLEX (optimization software), MS Office(Excel, PowerPoint), Tableau

Languages

English , French (level: B2)

AWARDS & HONORS

Concordia University Accelerator Award *Aug 2019*

Concordia University Conference and Exposition Award *May 2019 & May 2018*

Concordia University Best Industrial Engineering Ph.D. Poster Award *April 2019*

Canadian Operational Research Society (CORS) Graduate Funding Award *June 2018*
CORS Annual Conference *Halifax, Canada*

Concordia University International Tuition Award of Excellence *Aug 2019*

Eligible to Pursue Master's Study Without Entrance Exam (Outstanding Student) *Jan 2011*
Ferdowsi University *Mashhad, Iran*

JOURNALS

**Data-Driven Inverse Optimization for Recommender Systems &
Inverse Integer Optimization with Multiple Observations**

M. Moghaddass and D. Terekhov, Under review at Optimization Letters Journal

Inverse Integer Optimization with an Imperfect Observation

M. Moghaddass and D. Terekhov, Accepted in Operations Research Letters Journal

WORKSHOPS & CERTIFICATES

Python for Data Science and Machine Learning BootCamp *Jan 2020*

UDEMY online course, (NumPy, Pandas, Seaborn, Matplotlib, Plotly, Scikit-Learn, Machine Learning)

Tableau Training For Data Science *June 2020*

UDEMY online course, (Data visualisation skills)

Workshop on Recommender Systems *Aug 2019*

IVADO, HEC Montreal, Canada (Learning advanced recommender system algorithms in Python)