Mohammad Reza Aminian

Curriculum Vitae/Resume

Research Interests

Social / Ethical Operations, (Online) Algorithms, (Online) Learning, ML, RL, Optimization, Game Theory, Mechanism / Information Design

Education

2021 - Ph.D. in Business: Management Sciences / Operations Management,

Present The University of Chicago, Booth School of Business, Chicago, IL, USA Advisor: Prof. Rad Niazadeh

Expected Graduation Date: June 2026

2018 - 2021 B.S. in Computer Science, Sharif University of Technology, Tehran, Iran.

2016 - 2021 B.S. in Electrical Engineering, Sharif University of Technology, Tehran, Iran.

Selected Honors and Awards (since 2012)

- 2023 Third Place, IBM Service Science Best Student Paper Award, INFORMS
- 2021 2023 K.D.M. Fellowship Award, The University of Chicago, Booth School of Business
- 2021 2027 **Booth Doctoral Fellowship Award**, The University of Chicago, Booth School of Business
 - 2019 Top Second Prize Winner at International Mathematics Competition for university students, *Bulgaria*
 - 2016 Honorary admission for Bachelor of Electrical Engineering, Sharif University of Technology, Tehran, Iran
 - 2016 Silver medalist at 57th International Mathematical Olympiad (IMO), and the top mark of the Iranian team, *Hong Kong*
 - 2015 Gold medalist at 33rd National Mathematical Olympiad, Iran
 - 2014 Silver medalist at International Mathematics Competition (KIMC), South Korea
 - 2014 Second Runner up Group prize at International Mathematics Competition (KIMC), South Korea
 - 2014 Second Runner up Team prize at International Mathematics Competition (KIMC), South Korea
 - 2014 Silver medalist at 32nd National Mathematical Olympiad, Iran
 - 2014 Gold medalist at 15th National Mathematics Competition (KIMC), Iran
 - 2014 Membership of National Elite Foundation, Iran
 - 2013 Selected as a member of the Iranian Team at International Zhautykov Olympiad (IZHO), Iran
 - 2013 Gold medalist at 14th National Mathematics Competition (BIMC), Iran
 - 2013 Gold medalist at 3rd Mathematical Olympiad of Iranian Teenagers, Iran

Research

Real-Time Personalized Order Holding

Designing practical approximation algorithms for the online order holding problem to enjoy the benefits of catching cancellations and multiorder consolidations. SSRN: 4644495 Co-authors: Prof. Will Ma (Columbia GSB), Prof. Linwei Xin (Chicago Booth)

Markovian Search with Socially Aware Constraints

Incorporating ex-ante constraints in different aspects and variations of the sequential search problem. SSRN: 4347447

Co-authors: Prof. Vahideh Manshadi (Yale SOM), Prof. Rad Niazadeh (Chicago Booth)

• Third Place, IBM Service Science Best Student Paper Award, INFORMS 2023

Talks

Real-Time Personalized Order Holding:

INFORMS 2023, Phoenix, AZ, USA
ChicagoBooth Operations Day 2023, Chicago, IL, USA
MOPTA 2023, Bethlehem, PA, USA
MIW 2023, Virtual

Markovian Search with Socially Aware Constraints:

Columbia Workshop on Fairness 2023, Poster, NYC, NY, USA INFORMS 2023, Phoenix, AZ, USA RMP 2023, Presented by Rad Niazadeh, London, UK EC 2023, Poster, Virtual MIW 2023, Virtual NYC OPS Day 2023, Poster, NYC, NY, USA INFORMS 2022, Indianapolis, IN, USA

Teaching

T.A. Operations Management, Executive MBA, Chicago Booth: 2024

T.A. Managerial Decision Modelling, MBA, Chicago Booth: 2023, 2024

T.A. Linear Programmig, Ph.D., Chicago Booth: 2022, 2023

Math Olympiad Teacher and Tutor

Work

2019 - 2021 Research Assistant at the Sharif University of Technology, Tehran, Iran.

Graph Auto-Encoder with capability of reconstructing any weighted adjacency matrix Supervisor: Prof. Saber Saleh Kaleybar

2017 Research Assistant at Ambient Intelligence Research Lab (AIR Lab), Sharif University of Technology, Tehran, Iran.

Signal Processing on the EEG data Supervisor: Prof. Hamid K. Aghajan

Languages

Human Persian: Native, English: Advanced, Arabic: Intermediate, Turkish: Intermediate

Computer Matlab, Python, R, Java, C++, C, LATEX

Extracurricular Activities

Swimming, Hiking, Cycling, Table Tennis, Ecotourism, Watching Movie and Anime

Selected Courses

Graduate Approximate Dynamic Programming, Market Design, Large Scale Optimization, Learning and Game Theory, Supply Chain, Dynamic Programming, Econometrics 2 and 3, Online Optimization 1 and 2, Approximation Algorithms, Stochastic Processes, Linear Programming, Advanced Microeconomics Analysis, Microeconomics 2 and 3, Graph Representation Learning, Deep Learning, Machine Learning, Causal Inference, Distributed Systems, Data Networks, Principles of Entrepreneurship, Convex Optimization 2, Queuing Theory (Both Sharif and Booth)

Under Artificial Intelligence, Introduction to Machine Learning, Graph Theory, Linear Algebra, **Graduate** Design Algorithms, Convex Optimization 1, Stochastic Processes, Probability and Statistics, Data Structures, Automata and Languages Theory, Numerical Analysis 1 and 2, Math Logic, Introduction and Advanced Programming, Math Analysis, Discrete Math, Differential Equations, Principles of Economy, Combinatorics