Mobin Yahyazadeh

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Department of Management Science and Engineering
Stanford University

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EDUCATION

Stanford University, Management Science and Engineering Department — 2018-Present
- Ph.D. Candidate **Operations Research**
  Advisor: Irene Lo
- M.S. **Operations and Analytics** — 2018-2021

Sharif University of Technology, Tehran, Iran — 2013-2018
- B.Sc. **Computer Engineering**, minor in **Economics** — *GPA*: 4.0

EXPERIENCE

Stanford University, CA, USA
- *Ongoing Project*: In partnership with SFUSD, developed an equitable and efficient zoning system for elementary school assignments, leveraging MCMC for balanced graph cuts and Gurobi for linear programming to ensure diversity, contiguity, and compactness. Designed and tested predictive models to assess the impact of zoning policies on student preferences. Enhanced assignment strategies through innovative matching mechanisms, optimizing for fairness and efficiency. Scheduled for implementation by 2026.

Apple Inc, Advanced Analytics Team, Cupertino, CA, USA — Summer 2022 & 2023
- Outlier Detection in Multivariate Time Series (Self-Supervised Learning).
  Results presented at Apple Internal Workshop on ML.
- Assembly Line Failure Prediction (Supervised Learning).
- Train Large Language Models for Operational Automation.

Microsoft Inc, Redmond, WA, USA — Summer 2021
- Developing prediction models to predict capacity consumption of various operating systems in Microsoft Azure.

EPFL University, Lausanne, Switzerland — Summer 2016 & 2017
- Providing a refined memory bound for L_0 samplers and the memory requirements for identifying connected components in a large dynamic graph in a single-pass streaming model.

HONORS & AWARDS

Gold Medal in the 30th Iranian **National Math Olympiad**	2012
10th place in **Regional ACM**, Tehran	2014
The Heitz Fellowship Fund	2022
Jerome Kaseberg Doolan Fellowship Fund	2021
Stanford University Doctoral Fellowship	2018-2020
Doing Good with Good OR, best paper finalist at INFORMS	2022
Scholarship for ITCSC Winter School, CUHK, Hong Kong	2015

PUBLICATIONS

Decentralized Matching in a Probabilistic Environment — **EC'21**
M. Yahyazadeh, I. Lo, T. Pollner, A. Saberi
The Twenty-Second ACM Conference on Economics and Computation, Budapest, Hungary

Optimal Lower Bounds for Universal Relation, and for Samplers and Finding Duplicates in Streams — **FOCS'17**
M. Kapralov, J. Nelson, J. Pachocki, Z. Wang, D. P. Woodruff, M. Yahyazadeh
The 58th IEEE Symposium on Foundations of Computer Science, Berkeley, California, United States

Designing School Choice for Diversity in San Francisco — **INFORMS'22**
M. Allman, K. Mentzer, M. Yahyazadeh — (Submitting to Journal)
Institute for Operations Research and the Management Sciences, Indiana, US

RELATED COURSES

Massive Data Algorithms, Reinforcement Learning, Convex Optimization, Stochastic Systems, Social Data Analysis, Modern Information Retrieval, Design and Analysis of Algorithms, Linear Programming, Linear Algebra, Design of Approximation Algorithms, Matching Theory, Microeconomics, Game Theory

RESEARCH INTERESTS

Online Sequential Learning, Revenue Maximization in Stochastic Platforms, Decision Making Under Uncertainty

TEACHING EXPERIENCE

Teaching Assistant

- MS&E 319 (*Matching Theory*), Stanford University, Professor Amin Saberi
- MS&E 135 (*Networks*), Stanford University, Professor Johan Ugander
- MS&E 211 (*Introduction to Optimization*), Stanford University, Professor Ashish Goel
- Design of Algorithms, Sharif University, Professor Mohamad Ghodsi
- Teaching Combinatorics, Number Theory, and problem solving to students focusing on Math Olympiad.

PRESENTATIONS

Decentralized Matching in a Probabilistic Environment

- *ACM Conference on Economics and Computation* (**EC'21**) July 2021
- *Marketplace Innovation Workshop* (**MIW'21**) May 2021
- *Highlights of Algorithms, The London School of Economics and Political Science* (**HALG'21**) May 2021
- *INFORMS Annual Meeting* (**INFORMS'21**) Oct 2021

SKILLS

Programming Languages: Python
Hobbies: Surfing, Rock climbing, Cooking new recipes