Aida Rahmattalabi

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Center for AI in Society (CAIS)
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RESEARCH INTERESTS

Data-Driven Decision Making, Machine Learning, Responsible AI, Algorithmic Fairness, Causal Inference, AI for Social Impact, Stochastic and Robust Optimization, Social Network Analysis, Reinforcement Learning

EDUCATION

Ph.D. at University of Southern California — Los Angeles, CA
Major: Computer Science — *August 2016 – May 2022 (Expected)*
Advisors: Phebe Vayanos, Milind Tambe (Harvard University)

M.Sc. at Oregon State University — Corvallis, OR
Major: Robotics; Minor: Computer Science — *September 2014 – August 2016*
Advisor: Kagan Tumer

B.Sc. at Amirkabir University of Technology — Tehran, Iran
Major: Mechanical Engineering — *October 2009 – September 2013*

GRANTS AND AWARDS

Grace Hopper Celebration Student Scholarship, 2021.

Women in Operations Research - Bayer Scholarship, INFORMS 2020.

Diversity, Equity and Inclusion Ambassadors Award, INFORMS 2020.

Living to Love Another Day Foundation ($5,000): Designed the algorithm that secured the incentive funds for pilot deployment of suicide prevention intervention (original work published at NeurIPS) 2019.

EXPERIENCE

Sony AI — Remote
AI Ethics Research Intern, Mentored by Alice Xiang — *Present*

RegLab Summer Institute, Stanford Law School — Remote
Summer Graduate Student Fellow, Mentored by Daniel Ho — *Summer 2021*

University of Southern California — Los Angeles, CA
Research Assistant: OR/AI for Social Good, Data-Driven Decision Making, Fairness — *Since 2016*

HP Labs — Corvallis, OR
Robotic Program Intern, Mentored by Will Allen — *Summer 2016*

Oregon State University, AADI Laboratory — Corvallis, OR
Research Assistant: Learning Based Control, Multiagent Reinforcement Learning — *2014 - 2016*

PUBLICATIONS AND WORKING PAPERS

A. Rahmattalabi, A. Xiang. Causal Fairness: A Potential Outcomes Perspective. Under preparation.

A. Rahmattalabi, P. Vayanos, K. Dullerud, E. Rice. Designing Efficient and Equitable Housing Allocation Policies from Data Collected in Deployment, Under preparation.

M. Izenberg, R. Brown, C. Siebert, R. Heinz, **A. Rahmattalabi**, P. Vayanos. An iterative and community-partnered approach to social network data collection for large and impartial networks. Under review.

A. Rahmattalabi*, S. Jabbari*, H. Lakkaraju, P. Vayanos, M. Izenberg, R. Brown, E. Rice, M. Tambe. Fair Influence Maximization: a Welfare Optimization Approach. Proceedings of the AAAI Conference on Artificial Intelligence 2021. ($*$ equal contributions)

A. Rahmattalabi, S. Jabbari, H. Lakkaraju, P. Vayanos, M. Tambe. Fairness in Public Health Preventative Interventions. AAAI Conference on Artificial Intelligence, Health Intelligence Workshop 2020.

A. Rahmattalabi, P. Vayanos, A. Fulginiti, E. Rice, B. Wilder, A. Yadav, M. Tambe. Exploring Algorithmic Fairness in Robust Graph Covering Problems. Proceedings of the Thirty-third Conference on Neural Information Processing Systems (NeurIPS) 2019.

A. Rahmattalabi, A. Adhikari, P. Vayanos, M. Tambe, E. Rice, R. Baker. Social Network Based Substance Abuse Prevention via Network Modification (a Preliminary Study). International Conference on Autonomous Agents and Multiagent Systems (AAMAS), Strategic Reasoning for Societal Challenges Workshop (SRSC) 2019.

A. Rahmattalabi, P. Vayanos, M. Tambe. Robust Peer-Monitoring on Graphs with an Application to Suicide Prevention in Social Networks. International Conference on Autonomous Agents and Multiagent Systems (AAMAS) 2019, Extended Abstract.

A. Rahmattalabi, P. Vayanos, M. Tambe. A Robust Optimization Approach to Designing Near-Optimal Strategies for Constant-Sum Monitoring Games. Conference on Decision and Game Theory for Security (GameSec) 2018.

A. Yadav, **A. Rahmattalabi**, E. Kamar, P. Vayanos, M. Tambe, V. Noronha. Explanation Systems for Influence Maximization Algorithms. International Joint Conference on Artificial Intelligence (IJCAI), International Workshop on Social Influence Analysis (SocInf) 2017.

A. Rahmattalabi, J. Chung, M. Colby, K. Tumer. D++: Structural credit assignment in tightly coupled multiagent domains. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2016.

A. Rahmattalabi, J. Chung, K. Tumer. Structural credit assignment in heterogeneous tightly coupled multiagent tasks. Robotics: Science and Systems Conference (RSS), Workshop on Online Decision-Making in Multi-Robot Coordination 2016.

A. Rahamttalabi, M. Colby, K. Tumer. Coordination of Large Distributed Sensor Networks Using Novel Evolutionary Algorithms. International Society of Automation Power Industry Division Symposium 2015.

BOOK CHAPTERS

A. Fulginiti, **A. Rahmattalabi**, J. Call, P. Vayano, E. Rice. Using Algorithmic Solutions to Address Gatekeeper Training Issues on College Campuses. Modeling for Health: Making Changes. Under review.

A. Rahmattalabi, L. Onasch-Vera, Roybal, O., Nguyen, K., Tran, L., Petering, R., M. Tambe. Artificial Intelligence for Improving Access to Sexual Health Necessities for Youth Experiencing Homelessness. Artificial Intelligence and Social Work, 2018.

SKILLS

Technical Convex and Combinatorial Optimization, Machine Learning, Causal Inference, Data Analysis

Programming Languages Python, C++, MATLAB

Software Packages and Libraries RStudio, Tensorflow, Keras, Scikit-learn, Pandas, Gurobi, MySQL

TEACHING ASSISTANTSHIP

CSCI 570: Analysis of Algorithms *Fall 2018*

CSCI 103: Introduction to Programming C++ *Fall 2016*