

Amin Rakhsha

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RESEARCH INTERESTS	Machine Learning, Reinforcement Learning, Statistics	
EDUCATION	Sharif University of Technology , Tehran, Iran	
	B.Sc. in Computer Engineering	Sep. 2016 - Expected Sep. 2020
	- GPA: 19.48/20	(as of Jun. 2020)
	- GPA in Major Subject: 19.53/20	(as of Jun. 2019)
	Iranian Young Scholars Club , Tehran, Iran	
	National Mathematical Olympiad Gold Medalists Education Period	Oct. 2015 - Jul. 2016
	- University Courses: Mathematical Analysis I, Abstract Algebra, Linear Programming	
	- Olympiad Courses: Algebra, Combinatorics, Number Theory, Geometry	
	- Qualified for Iran's six-person team in International Mathematical Olympiad.	
	Allameh Helli High School , Affiliated with National Organization for Development of Exceptional Talents (NODET), Tehran, Iran	
	Diploma in Mathematics and Physics	Sep. 2012 - May 2016
	- Diploma GPA: 19.97/20, ranked 1 st among 300+ students	
PUBLICATIONS	Rakhsha, A. , Radanovic, G., Devidze, R., Zhu, X., and Singla, A. Policy Teaching via Environment Poisoning: Training-time Adversarial Attacks against Reinforcement Learning. In <i>Proceedings of the 37th International Conference on Machine Learning (ICML)</i> , 2020.	
RESEARCH EXPERIENCE	Max Planck Institute for Software Systems (MPI-SWS) , Saarbrücken, Germany	
	Research Intern Under the Supervision of Prof. Adish Singla	Jul. - Sep. 2019
	- Formulated the problem of adversarial attacks in reinforcement learning (RL).	
	- Inspected the problem of poisoning rewards in online and offline RL settings.	
	Chinese University of Hong Kong (CUHK) , Institute of Theoretical Computer Science and Communications, Hong Kong	
	Funded Summer Research Program Participant	Jul. - Aug. 2018
	- Worked on improving the optimization algorithm used for distributionally robust logistic regression under the supervision of Prof. Anthony Man-Cho So (in a team of three students).	
	- Analyzed randomness extraction from generalized Santha-Vazirani sources with infinite possible distributions under the supervision of Prof. Andrej Bogdanov (in a team of three students).	
HONORS AND AWARDS	• National Elite Foundation Fellowship	2015 - present
	• Silver Medal in International Mathematical Olympiad (IMO) [link]	Jul. 2016
	• Gold Medal in Iran National Mathematical Olympiad	Sep. 2015
	• Silver Medal in International Mathematics Competition (IMC) [link]	Jul. 2014
	• Champion Team in International Mathematics Competition (IMC) [link] Iran B team member	Jul. 2014
	• Silver Medal in International Mathematics Competition (IMC) [link]	Jul. 2011
	• Design of Algorithms , Instructor: Prof. Mohammad Ali Abam Instructed the discussion classes. Designed assignments. Graded exams.	Fall 2019
TEACHING EXPERIENCE	• Linear Algebra , Instructor: Prof. Abolfazl Motahari Designed the syllabus. Designed and graded assignments.	Fall 2018
	• Data Structures and Algorithms , Instructor: Prof. Mohammad Ghodsi Designed and graded assignments.	Fall 2018
	• Probability and Statistics , Instructor: Prof. Abolfazl Motahari Instructed the discussion classes. Created reading materials. Designed and graded assignments.	Fall 2017

OTHER EXPERIENCES	Data Days Machine Learning and Data Science Competition	Dec. 2018
	Designed the tasks and judged contestants' results and methods as a member of the scientific staff.	
	SharifWorks Job-Finder Website	Oct. - Dec. 2018
	Developed a job-finding website using Django as a course project with two other students.	
	An Analysis of Globally Famous People	Mar. - Jul. 2018
RELEVANT COURSEWORK	Studied 13 000 globally famous people using multiple datasets as well as crawling Wikipedia. Proposed the project for university Data Analysis course, tied for first place among 70+ students.	
	Field Introduction Seminar Series (FieldIn)	Jan. 2018
	Directed a staff of 16 as co-head of the execution team.	
	Rahnema Co.	Jul. - Aug. 2017
	As a software developer intern, worked on a minimal location-based social network. Participated in the development of the iOS and Android applications as well as the back-end.	
TECHNICAL SKILLS	Sina Neurosurgical Assist	Aug. 2014
	Developed an Android application to assist certain brain surgical procedures. The app has been used in various publications by different authors.	
	Machine Learning (graduate, audited), Artificial Intelligence, Linear Algebra, Data Analysis, Probability and Statistics, Design of Algorithms, Data Structures, Discrete Structures	
	<ul style="list-style-type: none"> General Skills: <ul style="list-style-type: none"> Advanced: Java, R, Python Intermediate: C, C++, Git, L^AT_EX Android and iOS Application Development: React-Native Website Development: Django, Node.js 	