Arshia Soltani Moakhar

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Education

Sharif University of Technology
Tehran, Iran

B.S. in Computer Engineering — *Sep. 2019 - present*

- Overall GPA: **18.33/20**
- Last two semesters GPA: **19.66/20**

Allameh Helli High School
Tehran, Iran

Diploma in Mathematics and Physics — *Sep. 2017 - Oct. 2019*

- Overall GPA: **18.22/20**
- Affiliated with National Organization for Development of Exceptional Talents (NODET)

Publications

Your Out-of-Distribution Detection Method is Not Robust!
NeurIPS

Advances in Neural Information Processing Systems — *2022*

- We found that Out-of-Distribution Detection methods are not robust against end-to-end attacks. In addition, We propose a method named ATD which significantly outperforms other methods.
- Second Author

Honors & Awards

2019	**Silver Medal**, International Olympiad in Informatics (same as Algorithm Design in Computer Science)	*Baku, Azerbaijan*
2019	**Bronze Medal**, international junior competitive programming competition, infO(1)CUP	*Romania*
2018	**Gold Medal (First Place)**, National Olympiad in Informatics	*Tehran, Iran*
2017	**Silver Medal**, National Olympiad in Informatics	*Tehran, Iran*
2020	**First Place**, Sharif CodeJam	*Tehran, Iran*

Research Experience

Robust and Interpretable Machine Learning Lab
Sharif University of Technology

Research Assistant — *Aug. 2021 - Present*

- Under Dr. Mohammad Hossein Rohban Supervision
- Publish a paper in **NeurIPS 2022** with this lab
- Research in Out-of-Distribution detection methods and Adversarial Robustness methods intersection.

Domain Incremental Continual Learning
Sharif University of Technology

Research Assistant — *Sep. 2021 - Mar. 2022*

- Under Dr. Mahdieh Soleymani Baghshah Supervision
- Analyzing the neural networks which continually adapt to new domains.

Teaching

Main Graph Theory Instructor
Tehran, Iran

Summer camp for Iran National Olympiad in Informatics — *2021*

- Forty students chosen from 10000 students by three exams participated in the summer camp.

Algorithm Instructor
Tehran, Iran

National Team Camp for Iran's National Olympiad in Informatics. — *2021-2022*

- The national team consists of the four chosen students from 10000 students.
- I am responsible for some graph algorithms, e.g., maximum flow.

Game Theory Course Design, Team Leader

Isfehan, Iran

Rastaiha(NGO)

Mar. 2021

- The team designed a two parts online course for high school students.
- The first part topic was "Truthful Allocation Mechanisms Without Payments."
- The second part was about collaboration: core Value and Shapley Value.

Algorithm tutor

Tehran, Iran

Hiva Karami and Negar Arj personal tutore

2019 - 2021

- Hiva has achieved a national gold medal in INOI.
- She was the first girl to achieve this medal in the past ten years.
- Those classes were almost free, aiming for more sexual equality in INOI.

Experience

Iran National Olympiad in Informatics

Tehran, Iran

Algorithmic Problem Design Team Leader

Jul. 2020 - Sep. 2021

- The team designed **novel** and **challenging** algorithmic problems.
- Exams chose Iran national team, sent to International Olympiad in Informatics.
- As a leader, I manage the team and meetings. Also, like other members, I evaluate problems' novelties & difficulty. Propose novel questions and create test cases to evaluate students' codes.

Related Courses

Sharif University of Technology

Artificial Intelligence	20.0/20
Machine Learning	20.0/20
Discrete Structures	20.0/20
Data Struct & Algorithms	20.0/20
Design Of Algorithms	20.0/20
Game Theory	20.0/20
Adv Information Retrieval(NLP)	19.9/20
Theory Of Machines & Language	19.5/20
Linear Algebra	18.8/20
Eng Probability & Statatic	18.2/20

Online Courses

Deep Learning Specialization by DeepLearning.AI

Basic Generative Adversarial Networks by DeepLearning.AI

Game Theory I, II by Stanford University

Multi-Task and Meta-Learning(CS330) by Stanford University

Introduction to Deep Learning 11-785 by CMU University

Skills

Machine Learning	Python, Pytorch, TensorBoeard, Numpy, Pandas, Matlab
Coding	C++, Java, JavaScript, Bash, Linux, Git, Django, Racket
Writing	LaTeX, Visio