Arshia **Soltani Moakhar**

SHARIF UNIVERSITY OF TECHNOLOGY · COMPUTER ENGINEERING

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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! (arXiv Link)   *NeurIPS*
ADVANCES IN NEURAL INFORMATION PROCESSING SYSTEMS   *May. 2022*
- We found that Out-of-Distribution Detection methods are not robust against end-to-end attacks.
- We propose a method named ATD which significantly outperforms other methods.
- Second Author

Honors & Awards

2022	**Contestant**, International Collegiate Programming Contest World Final (ICPC)	*Bangladesh*
2020	**First Place**, Sharif CodeJam	*Tehran, Iran*
2019	**Silver Medal**, International Olympiad in Informatics (IOI)	*Baku, Azerbaijan*
2019	**Bronze Medal**, International junior competitive programming competition, infO(1)CUP	*Romania*
2019	**First Team**, The 7th Ferdowsi Collegiate Programming Contest	*Mashhad, Iran*
2018	**Gold Medal (First Place)**, National Olympiad in Informatics (INOI)	*Tehran, Iran*
2017	**Silver Medal**, National Olympiad in Informatics (INOI)	*Tehran, Iran*

Experiences

Robust and Interpretable Machine Learning Lab   *Sharif University of Technology*
RESEARCH ASSISTANT   *Aug. 2021 - Present*
- Under Dr. MH. Rohban Supervision
- Research in Out-of-Distribution detection and Adversarial Robustness

Domain Incremental Continual Learning Lab   *Sharif University of Technology*
RESEARCH ASSISTANT   *Sep. 2021 - Mar. 2022*
- Under Dr. M. Soleymani Baghshah Supervision
- Analyzing the neural networks which continually adapt to new domains

Design Algorithmic Problem   *National Olympiad (INOI)*
TEAM LEADER   *July. 2020 - Sep. 2021*
- The team designed **novel** and **challenging** algorithmic problems.
- Exams chose Iran national team, sent to IOI.
- As a leader, I manage the team and meetings. Also, like other members, I evaluate problems' novelties & difficulties. Propose novel questions and create test cases for evaluating students' codes.

Teaching

Main Graph Theory Instructor *Tehran, Iran*
INOI SUMMER CAMP *July. 2021 - Sep. 2021*
- Forty students were chosen from 10000 students by three exams participated in the summer camp.

Algorithm Instructor *Tehran, Iran*
INOI TEAM CAMP *2021-2022*
- The national team consists of the four chosen students from 10000.
- I am responsible for some graph algorithms, e.g., maximum flow.

Game Theory Course Design, Team Leader *Isfahan, Iran*
RASTAIHA NGO *Feb. 2021 - April. 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.

Related Courses

Sharif University of Technology

$20.0_{/20}$ *Artificial Intelligence*
$20.0_{/20}$ *Machine Learning*
$20.0_{/20}$ *Discrete Structures*
$20.0_{/20}$ *Design Of Algorithms*
$20.0_{/20}$ *Game Theory*
$19.9_{/20}$ *Adv Information Retrieval(NLP)*
$18.8_{/20}$ *Linear Algebra*
$18.2_{/20}$ *Eng Probability & Statistic*

Online Courses

Deep Learning Specialization by DeepLearning.AI
Practical Reinforcement Learning by HSE university
Game Theory I, II by Stanford University
Introduction to Deep Learning 11-785 by CMU University

Skills

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

References

Dr. Mohammad Hossein Rohban *Tehran, Iran*
SHARIF UNIVERSITY OF TECHNOLOGY, ASSISTANT PROFESSOR *rohban@sharif.edu*
- Researching under his supervision for over one year in the RIMLab.

Dr. Mohammad Ali Abam *Tehran, Iran*
SHARIF UNIVERSITY OF TECHNOLOGY, ASSISTANT PROFESSOR *abam@sharif.edu*
- Prepared several algorithmic contests for INOI under his supervision.
- Taught Graph theory at the INOI summer camp, which he managed.