

# ALI ANSARI

Tehran, Iran

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## Education

### Sharif University of Technology

Tehran, Iran

*B.Sc. in Computer Engineering - Ministry of Science, Research and Technology* **Scholarship** Oct. 2020 – present

- Overall GPA: 19.26/20 - GPA in Major: 19.50/20
- Thesis: A data-driven approach for robust detection of out-of-distribution data (Advised by Prof. **M.H. Rohban**) - Grade: 20/20

### Hasheminejad 1 High School

Mashhad, Iran

*Diploma in Mathematics and Physics*

Sept. 2017 – June 2020

## Publications

### RODEO: Robust Outlier Detection via Exposing Adaptive Out-of-Distribution Samples ICML 2024

Hossein Mirzaei, Mohammad Jafari, Hamid Reza Dehbashi, **Ali Ansari**, Sepehr Ghobadi, Masoud Hadi, Arshia Soltani Moakhar, Mohammad Azizmalayeri, Mahdieh Soleymani Baghshah, Mohammad Hossein Rohban

### Scanning Trojaned Models Using Out-of-Distribution Samples

Submitted to NeurIPS 2024

Hossein Mirzaei, **Ali Ansari**\*, Bahar Dibaei Nia\*, Mojtaba Nafez, Moein Madadi, Sepehr Rezaee, Zeinab Sadat Taghavi, Arad Maleki, Kian Shamsaie, Mahdi Hajialilue, Jafar Habibi, Mohammad Sabokrou, Mohammad Hossein Rohban

### Toward Robust Novelty Detection Under Style Shifts

Submitted to NeurIPS 2024

Hossein Mirzaei, Mojtaba Nafez, Moein Madadi, Arad Maleki, Mahdi Hajialilue, Zeinab Sadat Taghavi, Sepehr Rezaee, **Ali Ansari**, Bahar Dibaei Nia, Kian Shamsaie, Mohammadreza Salehi, Jafar Habibi, Mahdieh Soleymani Baghshah, Mohammad Sabokrou, Mohammad Hossein Rohban

## Research Interests

- Trustworthy & Safe AI
- Adversarial Robustness
- Transformers
- Computer Vision
- Representation Learning
- Algorithms

## Honors and Awards

Top 10% Academic Ranking, Sharif University of Technology 2024

Ranked 3<sup>rd</sup> among more than 150,000 students, National University Entrance Exam of Iran (Konkur) 2020

Received silver medal among over 10000 students, Iran National Olympiad in Informatics 2019

## Research Experiences

### Sharif University of Technology

Aug 2022 – present

*Research Assistant, supervised by Prof. M.H. Rohban*

Tehran, Iran

- Research areas: Adversarial Robustness, Backdoor Attacks, Out-of-Distribution Detection

### Projects

- RODEO: Robust Outlier Detection via Exposing Adaptive Out-of-Distribution Samples (accepted at ICML 2024)
- TRODO: Scanning Trojaned Models Using Out-of-Distribution Samples (submitted to NeurIPS 2024, post-rebuttal scores: 6-6-6-5-5-4)
- Toward Robust Novelty Detection Under Style Shifts (submitted to NeurIPS 2024, post-rebuttal scores: 7-6-3)

## Chinese University of Hong Kong

*Research Assistant, co-supervised by Prof. **Tsung-Yi. Ho** and Dr. **Pin-Yu Chen***

**July 2023 – present**

*Hong Kong*

- Conducted a literature review on transformers architecture and LLMs
- Developing a method to detect jailbreaks in LLMs both effectively and efficiently
- Preparing a submission to ICLR 2025

## Hong Kong University of Science And Technology

*Research Assistant, supervised by Prof. **A. Goharshady***

**July 2023 – Sep 2023**

*Hong Kong*

- Designing parameterized algorithms that leverage tree-width and related parameters to identify the hierarchical structure of data locality in a sequence of memory accesses, with the aim of minimizing cache misses
- Became familiar with various topics in theoretical computer science including cryptography, program analysis and game theory

## Teaching Experiences

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### Teaching Assistant

- Machine Learning - Sharif University of Technology - Spring 2024
- Computer Networks - Sharif University of Technology - Spring 2024
- Probability and Statistics - Sharif University of Technology - Spring 2022
- Design & Analysis of Algorithms - Sharif University of Technology - (Fall 2022, Spring 2023, Fall 2023)
- Data Structures and Algorithms - Sharif University of Technology - (Spring 2022)
- Theory of Languages and Automata - Sharif University of Technology - (Spring 2023)

### Instructor

- Algorithms and data structures to volunteers of Informatics Olympiad - 2021

## Coursework

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- Optimization for Machine Learning (Online, EPFL)
- Deep Learning for Computer Vision (Online, cs231n, Stanford University)
- Convex Optimization (Sharif University of Technology, 17.8 / 20)
- Algorithmic Game Theory (Sharif University of Technology, Ongoing)
- Fundamentals of 3D Computer Vision (Sharif University of Technology, 20/20)
- Machine Learning (Sharif University of Technology, 20/20)
- Design & Analysis of Algorithms (Sharif University of Technology, 20/20)
- Computer Networks (Sharif University of Technology, 20/20)
- Artificial Intelligence (Sharif University of Technology, 19.8/20)
- Linear Algebra (Sharif University of Technology, 20/20)

## Technical Skills

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**Languages:** Python, C++, C, HTML/CSS, Java, SQL, Go, R

**Technologies:** Git, Docker, Bash

**Frameworks:** PyTorch, TensorFlow

## Other Projects

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### TinyNeRF | Python, Pytorch | Github

Winter 2024

- A simplified version of NeRF, implemented using PyTorch
- There is also an implementation of it in NeRF repository using TensorFlow
- This was the final project of Fundamentals of 3D Computer Vision course

### C-Minus Compiler | Python | Github

Fall 2023

- As a team, implemented a Compiler for C-Minus (A simplified version of C)
- This was the final project of Compilers Design course

### YuGiOh | Java | Github

January 2021, June 2021

- Implemented YuGiOh game in Java
- Used LibGDX as the main library for the game

## Work Experiences

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### Software Engineer at Divar

Tehran, Iran

- Worked with Django to develop the performance evaluation system for employees of the organization *Aug. 2021 – May 2022*

## Languages

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English | Professional Proficiency

IELTS Overall Band score: 8.0

Persian | Native proficiency

## Hobbies

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Hiking, Electronic Music, Movies, Podcasts

## References

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Mohammad Hossein Rohban

- Assistant Professor - Sharif University of Technology
- rohban@sharif.edu

Pin-Yu Chen

- Principal Research Staff Member- IBM Research AI
- pin-yu.chen@ibm.com

Mahdieh Soleymani Baghshah

- Associate Professor - Sharif University of Technology
- soleymani@sharif.edu

Mohammad Sabokrou

- Staff Research Scientist - Okinawa Institute of Science and Technology
- mohammad.sabokrou@oist.jp

Amir Kafshdar Goharshady

- Assistant Professor - Hong Kong University of Science and Technology
- goharshady@cse.ust.hk