Ali Ansari

Tehran, Iran

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Allliance

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 3rd 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 **July 2023 – present**
Research Assistant, co-supervised by Prof. ***Tsung-Yi. Ho*** *and Dr.* ***Pin-Yu Chen*** *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 **July 2023 – Sep 2023**
Research Assistant, supervised by Prof. ***A. Goharshady*** *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

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

- 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

Languages: Python, C++, C, HTML/CSS, Java, SQL, Go, R
Technologies: Git, Docker, Bash
Frameworks: PyTorch, TensorFlow

Other Projects

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 | Python | Github **Fall 2023**

- As a team, implemented a Complier 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

Software Engineer at Divar **Tehran, Iran**

Aug. 2021 – May 2022

- Worked with Django to develop the performance evaluation system for employees of the organization

Languages

English | Professional Proficiency **IELTS Overall Band score: 8.0**

Persian | Native proficiency

Hobbies

Hiking, Electronic Music, Movies, Podcasts

References

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