Ali Ansari

Tehran, Iran

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Education

Sharif University of Technology **Tehran, Iran**

B.Sc. in Computer Engineering - Fully funded *Oct. 2020 – present*

- Overall GPA: 19.26/20 (3.985/4.0) - GPA in Major: 19.50/20 (3.97/4.0)
- 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**

4th *author, in collaboration with Prof. Mohammad Hossein Rohban and Prof. Mahdieh Soleymani Baghshah*

Scanning Trojaned Models Using Out-of-Distribution Samples **NeurIPS 2024**

2nd *join author, in collaboration with Prof. Mohammad Hossein Rohban and Dr. Mohammad Sabokrou*

A Contrastive Teacher-Student Framework for Novelty Detection under Style Shifts **Submitted to ICLR 2025**

8th author, in collaboration wtih Prof. Mohammad Hossein Rohban, Prof. Mahdieh Soleymani Baghshah, and Dr. Mohammad Sabokrou

Research Interests

- Trustworthy & Safe AI
- Generative AI
- Large Language Models
- Computer Vision
- Representation Learning
- Algorithms

Honors and Awards

Ranked 1st as a team in a nation-wide competition on developing Persian LLM **2024**

- Worked on the problem of efficient inference of Falcon model on CPU.

Bronze Medal in Regional ICPC Contest **2022**

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*

- 1st Project: Adversarial Robustness of Outlier Detectors
- 2nd Project: Detection of Backdoor Attacks in Image Classifiers
- 3rd Project: Robust Novelty Detection under Style Shifts

Chinese University of Hong Kong **July 2024 – present**

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

- Project: Detection of jailbreaks in LLMs an accurate and effective manner

Hong Kong University of Science And Technology **July 2023 – Sep 2023**
Research Assistant, supervised by Prof. ***A. Goharshady*** *Hong Kong*

- Project: Minimizing cache misses in offline setting using Reference-Affinity scheme by leveraging parameterized algorithms

Teaching Experiences

Teaching Assistant (at Sharif University of Technology)

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

Instructor

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

Coursework

University Major Courses

- Convex Optimization (17.8/20), Fundamentals of 3D Computer Vision (20/20), Machine Learning (20/20), Design & Analysis of Algorithms (20/20), Computer Networks (20/20), Artificial Intelligence (19.8/20), Linear Algebra (20/20)

Online Courses

- Optimization for Machine Learning (Online, EPFL)
- Deep Learning for Computer Vision (Online, cs231n, Stanford University)
- Optimization for Machine Learning (Online, EPFL)

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 Compiler | 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

Technical Skills

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

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
- Tools & Frameworks: **Django** | **Python** | **Kubernetes** | **Docker** | **GitLab**

Languages

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

Persian | Native proficiency

Hobbies

Hiking, Electronic Music, Movies, Podcasts

References

Mohammad Hossein Rohban

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

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