Ali Ansari

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Education

Sharif University of Technology — **Tehran, Iran**
B.Sc. in Computer Engineering — *Oct. 2020 – present*
- Overall GPA: 19.20/20
- GPA in Major: 19.52/20

Hasheminejad 1 High School — **Mashhad, Iran**
Diploma in Mathematics and Physics — *Sep. 2017 – June 2020*

Honors and Awards

National University Entrance Exam of Iran (Konkur) — **August 2020**
- **Ranked 3rd** among more than **150,000** students

Iran National Olympiad in Informatics — **July 2019**
- Received **silver medal** among over **10000** students

Research Interesets

- Representation Learning
- Trustworthy Machine Learning
- Computer Vision
- Distributed Computing
- Natural Language Processing
- Algorithms

Research Experiences

Sharif University of Technology — **Aug 2022 – present**
Research Assistant, supervised by Prof. ***M.H. Rohban*** — *Tehran, Iran*
- Conducted a literature review on adversarial robustness and deep anomaly detection
- Utilized deep learning tools including **PyTorch** and **TensorFlow** to conduct various experiments
- Worked together with colleagues to create a technique for training models that can effectively withstand **adversarial attacks** across all categories of **anomaly detection**
- A paper submitted to **ICML 2024**
- Currently working on another project in the area of Trustworthy Machine Learning, focusing on the problem of backdoor attack detection
- Preparing a submission to NeurIPS 2024

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

Publications

RODEO: Robust Outlier Detection Via Exposing Adaptive Outliers
Submitted to ICML 2024
- Adversarial Robustness, Outlier Detection
- link to open review (currently Not visible to public)
- link to previous submission to ICLR 2024 (visible to public)

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

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-Minuse | 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

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)

Work Experiences

Software Engineer at Divar **Tehran, Iran**

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

Technical Skills

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

Languages

English | Professional Proficiency

Persian | Native proficiency

References

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

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

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