# Alireza Dehghanpour Farashah

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### **EDUCATION**

## Sharif University of Technology

Tehran, Iran BSc of Computer Engineering GPA: 19.48/20

Department of Computer Science and Technology September 2019 - Present

Allameh Helli High School

GPA: 4/4

Diploma of Mathematics July 2016 - June 2019

## TECHNICAL SKILLS

**Programming Languages** Python, Java, C, C++

Frameworks & Libraries PyTorch, TensorFlow, Keras, Scikit-learn,

Numpy, Pandas, Openmim, MMDetection, MMPose

Tools Git, PostgreSQL, MySQL, SQLite

Operating Systems Linux, Windows

CAD & Simulation Tools Proteus, ModelSim, Packet Tracer, Arena, Wireshark, Arduino

Soft Skills Communication, Teamwork, Problem-solving, Flexibility

## **PUBLICATIONS**

Mahdi Salmani, Alireza Dehghanpour Farashah, Mohammad Azizmalayeri, Mahdi Amiri, Navid Eslami, Mohammad Taghi Manzuri, and Mohammad Hossein Rohban. Blacksmith: Fast Adversarial Training of Vision Transformers via a Mixture of Single-step and Multi-step Methods. 2023. arXiv: 2310.18975 [cs.CV]. URL: https://arxiv.org/abs/2310.18975

## RESEARCH EXPERIENCE

## Chinese Univ. of Hong Kong (CUHK)

July 2023 - Present

Summer Intern

· Assistant Professor: Farzan Farnia

· Research Topics: Low Rank Adversarial Attacks, Nuclear Norm Attack

October 2022 - Present RIMLab

Undergraduate Research Assistant

· Assistant Professor: Mohammad Hossein Rohban

· Research Topics: Adversarial Robustness, Adversarial Attacks, Fast Adversarial Training

## Data Analytics Lab

October 2020 - November 2021

Undergraduate Research Assistant

- · Assistant Professor: Seyed Abolfazl Motahari
- · Research Topics: Natural Language Processing, Speech Recognition

## WORK EXPERIENCE

<sup>\*</sup> Equal contribution

July 2022 - August 2022

Medical Image Analyst

- · Supervisor: Seyed Abolfazl Motahari
- · White Blood Cell Classification, Large Scale Tissue Histopathology Image Classification

## Iran's National Elites Foundation

November 2021 - July 2022

NLP Researcher

- · Supervisor: Seyed Abolfazl Motahari
- · Trigger Word Detection, Voice Assistant, Speaker Recognition

## MCI R&D Lab

October 2020 - November 2021

 $Data\ Science\ Intern\ -\ NLP\ Researcher$ 

- · Supervisor: Dr. Amir Najafi
- · Training BERT Language Model for Persian Language, Speech-to-Text Model such as wav2vec.

#### COURSES

• Machine Learning (Graduate): 19.5/20, Intelligent Analysis of Biomedical Images (Graduate): 20/20, Artificial Intelligence: 20/20, Probability and Statistics: 20/20, Data & Network Security: 19.9/20, Operating Systems: 20/20, Computer Networks: 20/20 Discrete Mathematics: 19.9/20, Linear Algebra: 19.5/20, Design Algorithms: 20/20, Data Structures: 20/20,

## HONORS AND AWARDS

• 33<sup>rd</sup> in the Nationwide University Entrance Exam among over 160,000

## RESEARCH INTERESTS

• Robustness, Adversarial Attacks, Interpretability, Differential Privacy, Fariness, Domain Adaptation/Generalization, Biomedical Image Analysis, Object Detection, Pose Estimation, Pose Tracking

## TEACHING ASSISTANT

- Artificial Intelligence, Instructor: Mohammad Hossein Rohban (Spring 2023)
- Machine Learning, Instructor: Seyed Abolfazl Motahari (Spring 2023)
- Compiler Design, Instructor: Gholamreza Ghasemsani (Spring 2023)
- Machine Learning, Instructor: Ali Sharifi-Zarchi, Behrooz Azarkhalili (Fall 2022)
- Artificial Intelligence, Instructor: Gholamreza Ghasemsani (Spring 2022)
- Engineering Probability And Statistics, Instructor: Mahdi Jafari (Fall 2021)
- Engineering Probability And Statistics, Instructor: Amir Najafi (Spring 2021)
- Engineering Probability And Statistics, Instructor: Seyed Abolfazl Motahari (Fall 2020)

#### LANGUAGES

- English : Fluent
  - TOEFL iBT: 105 (Reading: 26, Listening: 30, Speaking: 24, Writing: 25)
- **Persian** : Mother tongue