Alireza Amiri

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Education

Sharif University of Technology   2021 - Present
B.S. Computer Engineering   *Current GPA: 3.83/4.0*

Research interests

- Machine learning
- Deep Learning
- Computer Vision

- Natural Language Processing
- Trustworthy ML
- Robustness

Research Experience

Internship in Vision Language Models | *Remote*   September 2023 - Present
L3S Research Ctr.
Supervised by: Prof. Mitra Parsenjit, Dr. Ali Rasekh
Currently working on Adversarial Data Augmentation on T2I models and also testing the robustness of them.

Project on Differential Privacy on LLMs   January 2024
Supervised by: Dr. Adam Dziedzic
The project was adding soft prompts from github.com/THUDM/P-tuning to a GPT2 model with differential privacy and comparing it to finetuning the model. This task was preformed with two different approaches on the LAMA dataset and the E2E dataset. I have also finetuned Bert tiny with methods like LoRA, full finetuning, finetuning with one layer, soft prompts and prefix and used differential privacy on soft prompts and prefix.

Awards

Silver Medal   2020
Iranian National Mathematical Olympiad

Honorable Mention   2020
Tuymaada Mathematical Olympiad

Silver Medal   2020
SilkRoad Mathematical Competition

Bronze Medal   2019
Iranian National Mathematical Olympiad

Silver Medal   2019
SilkRoad Mathematical Competition

First Prize   2018
European Mathematical Cup

Bronze Medal   2018
Iranian Geometry Olympiad

Certificate of Merit   2016
Purple Comet! Math Meet

Certificate of Participation   2016
University of Waterloo Gauss Contest

Teaching Experience

Machine Learning | *Teaching Assistant*   Spring 2024
Dr. Abolfazl Motaharri

Machine Learning | *Teaching Assistant*   Spring 2024
Dr. Fatemeh Seyed Salehi

Machine Learning | *Teaching Assistant*   Fall 2023
Dr. Abolfazl Motaharri

Advanced Programming | *Teaching Assistant*   Spring 2023
Dr. MohammadAmin Fazli

Probability and Statistics | *Teaching Assistant*   Spring 2023
Dr. Mahdi Jaafari Siavoshani

Logic Design | *Teaching Assistant*   Fall 2022
Dr. Laleh Arshadi

Fundamentals of Programming | *Teaching Assistant*   Fall 2022
Dr. MohammadAmin Fazli

Salam Girls Highschool | *Mathematical Olympiad algebra and combinatorics teacher*   2021-2023

Salam Highschool | *Mathematical Olympiad combinatorics teacher*   2022-2023

Projects

Differential Privacy on LLMs | *https://github.com/Alireza-81/DP-soft-prompts*

Persian Text Classifier | *https://github.com/Alireza-81/Persian-text-classifier*

3D Facial Mask Reconstruction | *https://github.com/SohrabiAlir/3D-Facial-Mask-Reconstruction*

State.IO | *https://github.com/Fundamentals-of-Programming-2021/project-Alireza-81*

Civilizations VI | *https://github.com/AdvancedProgrammingSUT2022/project-group-04*

CupHead | *https://github.com/Alireza-81/GraphicAssignment*

Related Coursework

Machine Learning | Deep Learning | Artificial Intelligence | Advanced Information Retrieval
Linear Algebra | Probability and Statistics | 3D Computer Vision | Algorithm Design | Advanced
Programming | Discrete Structures | Natural Language Processing | Large Language Models