Alireza Sakhaeirad

Contact: Email: alirezasakhaeirad@gmail.com | Webpage | LinkedIn

Interests

My primary research interest revolves around developing reliable and robust artificial intelligence systems. I am deeply committed to exploring the theoretical foundations and practical applications of AI, seeking to advance the field by creating AI systems that can perform consistently and effectively in real-world scenarios.

Awards & Recognition

- Ranked 1st in Iran's national university entrance exam 2019 (among more than 150k participants)
- Ranked 1st in Sharif University of Technology, Electrical Engineering program 2019
- Admission to Nodet (National Organization for Development of Exceptional Talents) high school

Education

BSc in Electrical Engineering, Sharif University of Technology

Sep 2019 - Feb 2024

- Current GPA: 19.68/20
- Current Rank: 1/165
- Bachelorette project: Robustness analysis of computer vision models

  Supervised by: Prof. Sajjad Amini

Research Intern, NLP lab, EPFL University

July 2023 - Sep 2023

- Commonsense evaluation of large language models
- Deep analysis of educational capabilities of large language models
- Continuous pretraining of large language models on medical corpus

Work Experience

Danial Moj Co. - *AI engineer*

July 2022 - Nov 2022

- Worked on solving industrial problems using machine learning

Research Experience

- Evaluating educational capabilities of large language models

  On-going research => publication will be out soon

  Supervised by: Prof. Antoine Bosselut
- Continuous pretraining of large language models on medical corpus

  On-going research => publication will be out soon

  Supervised by: Prof. Antoine Bosselut
- Dice-Flip: A new benchmark for commonsense reasoning in large language models

  Supervised by: Prof. Antoine Bosselut

- Robustness analysis of computer vision models

  On-going research

  Supervised by: Prof. Sajjad Amini

Technical Skills

- Programming Languages

  Python: High-Proficiency | Pytorch, Keras, sk-learn, pandas, NumPy,

  C/C++: Intermediate-Proficiency | Cuda

  Java: Intermediate-Proficiency | Swing

  MATLAB: Intermediate-Proficiency | Signal Processing

  Verilog, Assemble, Javascript:: Familiar

- Development Skills

  Docker

  Git/Github

  HTML/CSS

- Database management

  SQL

Selected Graduate-level Courses

- Reinforcement learning
- Security and privacy in machine learning
- Large Language models
- Stochastic modeling in communication systems
- Parallel computing and programming
- Differential privacy
- Deep learning
- Random processes

Selected Teaching-Assistance Experience

- Machine Learning
- Deep Learning
- Digital Signal processing
- Prob & Stat
- Convex Optimization
- Mathematics for Engineering
- Artificial Intelligence

Languages

- Persian

  Native

- English

  Fluent | TOEFL Score: 112/120 : Reading:30/ Listening:30/ Speaking: 26/ Writing:26