HOSSEIN GOLI

Computer Engineering Undergraduate Student

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EDUCATION

B.Sc. in Computer Engineering

Sharif University of Technology

📅 October 2020 – Ongoing   📍 Tehran, Iran

- Current GPA: **19.75/20**
- Current Major GPA: **19.99/20**
- Ranked **3/198** in CE Department

Diploma of Mathematics and Physics

📅 2014-2020   📍 Tehran, Iran

Affiliated with National Organization for Development of Exceptional Talents (NODET)
- Diploma GPA: 19.75/20

RESEARCH EXPERIENCE

- **Working under the supervision of Prof. Farzan Farnia - CUHK**
  Researching Certified Robustness and Generalization of Neural Networks and increasing the current metrics using unsupervised vision techniques such as Superpixel Segmentation.
  We Plan to submit our work to **IJCAI 2024**.
- **Working under the supervision of Prof. HR. Rabiee and M. Ramezani**
  Researching Burst Detection in Social Networks Using Survival analysis and Neural networks | Dec 2022 - Present

TEACHING EXPERIENCE

Physics Olympiad Instructor

📅 2020-2022

Teaching Calculus and Electromagnetics at various schools around Iran.

Teaching Assistant at Sharif University of Technology

📅 2020- Ongoing

- **Artificial Intelligence**| Dr. MH. Rohban | Spring 2023
- **Machine Learning** | Dr. AS. Motaharei | Spring 2023
- **Probability and Statistics** | Dr. A. Sharifi-Zarchi | Fall 2022
- **Linear Algebra** | Dr. HR. Rabiee and M. Ramezani | Fall 2022
- **Advanced Programming** | Dr. MA. Fazli | Spring 2022
- **Logic Design** | Dr. S. Hessabi | Spring 2022
- **Fundamental of Programming** | Dr. MA. Fazli | Fall 2021

ACADEMIC SERVICES

- Scientific Staff, 2022 AI challenge, Iran's Largest AI Competition
- Head of phase 1, 2022 League of coders Programming contest for CE first year students in many topics of Computer Science
- Game theory mentor, Rasta Summer School,Computer Science summer school for high school students

SKILLS

Programming Languages: Python, C/C++, Java, R, Verilog
Frameworks: Pytorch, Keras, Scikit-Learn, Pandas
Languages: Farsi (Mother Tongue), English (Advanced)

RESEARCH INTERESTS

Machine Learning | Robustness
Reinforcement Learning | Robotics
Trustworthy ML | Computer Vision

HONORS AND AWARDS

NATIONWIDE UNIVERSITY ENTRANCE EXAMS
2020 ● MATHEMATICS And PHYSICS
Ranked 32th (Among +150,000)

IRANIAN NATIONAL PHYSICS OLYMPIAD
2019 ● Silver medalist

RELEVANT COURSES

- Artificial Intelligence (20/20)
- Machine Learning (20/20)
- Probability and Statistics (20/20)
- Linear Algebra (20/20)
- Modern Information Retrieval (20/20)
- Advanced Programming (20/20)
- Data Structures and Algorithms (20/20)
- Machine Learning (Stanford CS229, online, audited)
- Deep Learning for Computer Vision (Stanford CS231N, online, audited)
- Convolutional Neural Networks (Coursera)
- Neural Networks and Deep Learning (Coursera)

PROJECT EXPERIENCE

Image Captioning
I use LSTM and encoder-decoder architecture for image captioning on the Flickr8k dataset.

Graph Clustering
Linear Algebra Project
Graph clustering using Python and linear algebra

Handwritten-digit-Classification
I use Residual CNN on the MNIST Dataset for digit classification using Pytorch.

Eigenface
Linear Algebra Final Project
Face recognition using eigenfaces and PCA

Yu-Gi-OH Trading Card Game
Advanced Programming Project
Yu-Gi-Oh game based on the famous trading card game Joey the Passion in Java