Mohammad Hossein Abbaspour

MohammadHAbbaspour | in mohammad-hossein-abbaspour | ⊕ mohammadhabbaspour.github.io | ≥ mohammadhabp@gmail.com | ↑ (+98) 913-4251720

SUMMARY

I am an undergraduate student majoring in Computer Engineering with a keen interest in Artificial Intelligence, particularly in Machine Learning. Currently pursuing my bachelor's degree, I have dedicated my studies to mastering the architectures and interpretability of various LLMs(Large Language Models).

EXPERIENCE

Backend Web Developer

Jul 2021 - Oct 2021

- Intern at Natural Language Processing Lab IUST
- Utilized Django to improve the backend of the website
- ullet Modified the Fake-News Telegram Bot

Research Assistant Jul 2023 - Feb 2024

- Natural Languages Processing Lab at IUST Under the supervision of Dr. Sauleh Eetemadi
- Working on sentence-transformers for semantic textual similarity
- Participating in SemEval2024 (SemEval-2024, BRAINTEASER, 11% improvement compared to the baseline)

Teaching Assistant

• Software Engineering	(Instructor: Dr.Behrouz Minaei-Bidgoli)	Sep 2023 - J	an 2024
------------------------	---	--------------	---------

- Operating Systems (Instructor: Dr.Reza Entezari-Maleki)
- Artificial Intelligence (Instructor: Dr.Mohammad Reza Mohammadi)
- Competitive Programming (Instructor: Dr.Marzieh MalekiMajd)
- Digital Logic Circuits (Instructor: Dr.Amir Mahdi Hosseini Monazzah)
- Theory of Languages and Automata (Instructor: Dr.Reza Entezari-Maleki) Feb 2023 Jul 2023
- Fundamentals of Database Design (Instructor: Dr.Hossein Rahmani)
- Design of Algorithms (Instructor: Dr.Marzieh MalekiMajd)
- Data Structures (Instructor: Dr.Hossein Rahmani) Sep 2022 Dec 2022
- Advanced Programming (Instructor: Dr.Sauleh Eetemadi) Feb 2022 Jun 2022
- Discrete Mathematics (Instructor: Dr. Vesal Hakami)
- Fundamentals of Computer Programming (Instructor: Dr.Mehrdad Ashtiani)
- Fundamentals of Computer Programming (Instructor: Dr.Sauleh Eetemadi) Sep 2021 Dec 2021

PROJECTS

RAG-System Link to Repo

This is my project for NLP course. I had to implement 2 major components of this system: Retriever and Generator.

BERT-for-Text-Classification

Link to Repo

This project is from *Coursera*. For that, I Fine tuned the *BERT* LLM for text classification on *Quora Insincere Questions* dataset.

Persian-Sentiment-Analysis

Link to Repo

I fine tuned two llms, *BERT-BASE-PARSBERT-UNCASED* and *XLM-ROBERTA-BASE* on *ArmanEmo* dataset for persian sentiment analysis task.

Semantic-Segmentation

Link to Repo

In this project I employed the MobileNetV2 architecture for segmenting the solar panel using data augmentation.

Object-Detection Link to Repo

For this project I had to detect the solar panels in an image using Yolov7.

Projma Link to Repo

Projma is a project similar to *Trello* for project management and added some extra features like retro and meeting.

EDUCATION

2020 - 2025 Bachelor's Degree at Iran University of Science and Technology

- GPA:
 - Last 2 years: 3.94/4 (19.41/20 Iranian scale)
 - Overall (up to now) via 133 units: 3.91/4 (18.95/20 Iranian scale)
- Iran, Tehran, Tehran
- Ranked 4th among Iran universities based on QS Ranking

2017 - 2020 Diploma in Mathematics and Physics Discipline at Shahid Bahonar

- GPA: 4/4 (19.74/20 Iranian scale)
- Iran, Kerman, Kuhbanan

RESEARCH INTERESTS

- Machine Learning / Deep Learning
- Reinforcement Learning
- Data Mining

- NLP / Signal Processing
- Computer Vision / Image Processing
- Graph Theory Algorithms

HONORS & AWARDS

Ranked within the Top 0.5% in Iranian University Entrance Exam (Konkur)

2020

- Ranked 648 among 155000 students

Ranked among the top 5% GPA in my class

2020 - 2024

- Class of about 100 students

Permitted to apply for M.Sc. program at the Department of Computer Engineering without taking the "National Entrance Exam for Graduate Schools" as an award for exceptional talented students

2024

SELECTED ACADEMIC COURSES

Foundations of Computational Intelligence	A+	Foundation of Computer Vision	A+
Foundations of Speech and Language Processing	A+	Deep Learning	A+
Graph Theory and Algorithms	A+	Software Engineering	A+
Advanced Computer Programming	A+	Data Structures	A+
Operating Systems	A+	Signals and Systems	A+
Theory of Languages and Automata	A+	Fundamentals of Database Design	A+
Data Communication	A+	Engineering Statistics	A+

SKILLS

Programming Languages Python, C#, C, CPP

Libraries and Frameworks Numpy, Pandas, Pytorch, Tensorflow, Transformers, OpenCV, Django,

Django REST Framework

Databases SQL Server, MySQL, PostgreSQL

Tools and Technologies Git, Linux

SELECTED ONLINE COURSES

Supervised Machine Learning: Regression and Classification [Certificate Link]	Coursera
Natural Language Processing with Classification and Vector Spaces [Certificate Link]	Coursera
Natural Language Processing with Probabilistic Models [Certificate Link]	Coursera
Natural Language Processing with Sequence Models [Certificate Link]	Coursera
Natural Language Processing with Attention Models [Certificate Link]	Coursera
Neural Networks and Deep Learning [Certificate Link]	Coursera
Sequence Models [Certificate Link]	Coursera

PUBLICATION

- "IUST-NLPLAB at SemEval-2024 Task 9: BRAINTEASER By MPNet (Sentence Puzzle)" (Link)

REFERENCES

- Dr. Sauleh Eetemadi (Assistant Professor)
 Iran University of Science & Technology
 Department of Computer Engineering
 Email: sauleh@iust.ac.ir
- Dr. Behrouz Minaei-Bidgoli (Professor)
 Iran University of Science & Technology
 Department of Computer Engineering
 Email: b_minaei@iust.ac.ir
- Dr. Reza Entezari-Maleki (Assistant Professor) Iran University of Science & Technology Department of Computer Engineering Email: entezari@iust.ac.ir
- Dr. Mehrdad Ashtiani (Assistant Professor)
 Iran University of Science & Technology
 Department of Computer Engineering
 Email: m_ashtiani@iust.ac.irr