MohammadHossein Abbaspour

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Education

2020 - 2025 Bachelor's Degree at **Iran University of Science and Technology (IUST)**

- Major: Computer Engineering
- GPA: 3.98/4.0 (18.93/20 Iranian Scale)
- Undergraduate project: Text classification using natural language processing algorithms
- Iran, Tehran, Tehran
- Ranked $\mathbf{4^{th}}$ 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, Kohbanan

Experience

Undergraduate Research Assistant Oct 2023 - Present

- Computer Engineering Department at IUST under the supervision of Dr. Sauleh Eetemadi
  - Working on text analysis using natural language processing and mathematical algorithms

Undergraduate Intern Jul 2023 - Oct 2023

- Computer Engineering Department at IUST under the supervision of Dr. Sauleh Eetemadi
  - Worked on semantic textual similarity using probabilistic models
  - Participated in SemEval2024 international workshop (SemEval-2024, BRAINTEASER, 11% improvement compared to the baseline)

Teaching Assistant Feb 2022 - Jan 2024

- Department of Computer Engineering, IUST
  - Software Engineering Fall 2023
  - Operating Systems
  - Competitive Programming
  - Digital Logic Circuits
  - Design of Algorithms Spring 2023
  - Fundamentals of Database Design
  - Theory of Languages and Automata
  - Data Structures Fall 2022
  - Advanced Programming Spring 2022
  - Discrete Mathematics
  - Fundamentals of Computer Programming

Backend Web Developer Intern Jul 2021 - Oct 2021

- NLP Lab at IUST
  - Utilized Django to improve the backend of the lab's website

Selected Projects

RAG-System Link to Code

This is my project for my Natural Language Processing course in university. This system is used to provide advices for psychological issues that people face with them.

Text-Classification Link to Code

This project is from *Coursera*. For that, I fine tuned a transformer for single emotion labeling of texts.

Persian-Sentiment-Analysis Link to Code

This is my project for my Natural Language Processing course in university. In this project I fine tuned some transformers for sentiment annotation of persian texts.

Semantic-Segmentation Link to Code

This is my project for my Fundamentals of Computer Vision course in university. In this project I used Image Analysis algorithms for segmenting the solar panels in images.

Object-Detection Link to Code

This is my project for my Fundamentals of Computer Vision course in university. In this project I used Image Analysis algorithms for detecting the solar panels in images.

Projma Link to Repo

This is my project for my System Analysis and Design course in university.*Projma* is a project similar to *Trello* for project management and added some extra features like retro and meeting.

Pharmacy-System Link to Code

This is my project for my Data Structures course at university. This is a data structure to load large amounts of information about medicines and illnesses to suggest the appropriate medicine based on the query.

RESEARCH INTERESTS

- Mathematical optimization and Algorithms
- Efficient and Interpretable Computational Methods
- Text Analysis
- Logic Programming

Skills

Programming Languages	Python, C#, C, CPP
Libraries and Frameworks	Numpy, Pandas, Transformers, OpenCV, Django
Databases	SQL Server, MySQL, PostgreSQL
Tools and Technologies	Git, Linux
Languages	English(IELTS: 7.0), Persian(Native Speaker)
Soft Skills	Teaching & Presentation, Documenting & Reporting, Team Work & Collaboration

HONORS & AWARDS

Ranked among the top 10% GPA in my class 2020 - 2024
- Class of about 100 students

Presenter at the *Scientific Association of the Computer Engineering Departement* 2024
- Honorary member of scientific association
- Presented my bachelor's experience and knowledge to first year students

SELECTED ACADEMIC COURSES

Fundamentals of Computer Programming	A+	Fundamentals of Computer Vision	A+
Fundamentals of Speech and Language Processing	A+	Fundamentals of Deep Learning	A+
Graph Theory and Algorithms	A+	Software Engineering	A+
Advanced Programming	A+	Data Structures	A+
Engineering Statistics and Probabilities	A+	Signals and Systems	A+
Principles of Databases Design	A+	Operating Systems	A+
Theory of Languages and Machines	A+	Data Transferring	A+

SELECTED ONLINE COURSES

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

Sequence Models [Certificate Link] Coursera

PUBLICATION

- "IUST-NLPLAB at SemEval-2024 Task 9: BRAINTEASER By MPNet (Sentence Puzzle)" (Link)
  - **Mohammad Hossein Abbaspour**, Erfan Moosavi Monazzah, Sauleh Eetemadi

REFERENCE

- **Dr. Sauleh Eetemadi** (Assistant Professor)
  Iran University of Science and Technology
  Department of Computer Engineering
  Email: sauleh@iust.ac.ir