

Mahsa Amani

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Education

Max Planck Institute for Software Systems (MPI-SWS)	Saarbrücken, Germany
PH.D. IN COMPUTER SCIENCE	Jun. 2024 - Present
• Supervised by Prof. Krishna P. Gummadi	
Sharif University of Technology (SUT)	Tehran, Iran
B.Sc. IN COMPUTER ENGINEERING	Sep. 2018 - Feb. 2023
• GPA: 18.03/20	
Farzanegan High School (National Organization for Development of Exceptional Talents (NODET))	Tabriz, Iran
DIPLOMA IN MATHEMATICS AND PHYSICS	Sep. 2011 - Jun. 2018
• GPA: 19.97/20	

Academic Honors

2022	Gifted Student Award	Entrance exam waiver for graduate program, Sharif University of Technology	Iran
2018-2023	Membership	In Iran's National Elites Foundation	Iran
2018	Rank 51st	In Mathematics and Physics B.Sc. entrance exam among more than 144,000 participants	Iran
2017	Accepted	In the First Exam of Mathematics Olympiad	Iran

Research Interests

- 📖 Large Language Models
- 📖 Multi-Modal Models
- 📖 Natural Language Processing
- 📖 Deep Learning
- 📖 Machine Learning

Relevant Courses

Natural Language Processing	20/20
Artificial Intelligence	20/20
Advanced Information Retrieval	19.3/20
Signals and Systems	20/20
Probability and Statistics	20/20
Data Structure and Algorithm	18.4/20

Languages

English	IELTS Overall Bandscore: 7.5 (👂Listening: 9, 📖Reading: 7, 🗣Speaking: 6.5, ✍Writing: 6.5)
Persian	Native Language
Azerbaijani	Mother Tongue

Certificates

📄 2023	Generative AI with Large Language Models , Andrew NG.	DeepLearning.AI
📄 2022	Deep Learning Specialization , Andrew NG.	DeepLearning.AI
📄 2021	Introduction to Computer Vision and Image Processing , IBM	IBM
📄 2021	Machine Learning , Andrew NG.	Stanford University
📄 2021	Introduction to Git and GitHub , Google	Google
📄 2021	Natural Language Processing in TensorFlow , Laurence Moroney	DeepLearning.AI
📄 2021	Web Application Technologies and Django , Charles Severance	University of Michigan
📄 2020	Advanced Python Programming and Object-Oriented Thinking , Quera	Quera

Publications

Linguistic Resources and Transformer-based Models for the Machine Translations between Luri and Yazdi Dialects versus Standard Persian

M. AMANI, M. NOURI, Z. BAHMANI, M. MIRBEYGI, N. HASHEMI, E. ASGARI, M. SOLEYMANI BAGHSHAH, H. BEIGY, A. MOVAGHAR

• Journal of the Linguistics Society of Iran, Published

The Language Model, Resources, and Computational Pipelines for the Under-Resourced Iranian Azerbaijani


M. AMANI, M. NOURI, R. ZOHRABI, E. ASGARI

• In Proceedings of ACL 2023 (Asia-Pacific ACL), Published


Iran

Feb. 2024

Skills

Programming 

Python, R, C/C++, JAVA, SQL, \LaTeX

ML tools 

Pytorch, Tensorflow, Keras, Scikit-learn, Numpy, Pandas

Multigenerator, Multidomain, and Multilingual Black-Box Machine-Generated Text Detection

SEMEVAL2024

• Development of automatic systems to identify machine-generated text with the goal of mitigating its potential misuse

Pipelines for low-resource Iranian Languages

RESEARCH ASSISTANT

• Developing pipelines for low-resource languages such as Azerbaijani, Luri, Yazdi, and Kurdi

A Large Language Model for Persian

RESEARCH ASSISTANT

• Development of a multilingual large language model fine-tuned for Persian

Explainable Detection of Online Sexism

SEMEVAL2023

• Development of English-language models for sexism detection with fine-grained classifications for sexist content from Gab and Reddit

Iran

Dec. 2023 - Jan. 2024

Iran

Sep. 2022 - Dec. 2023

Iran

Oct. 2023

Iran

Feb. 2023

Junior Data Scientist

ZAREBIN

• Developing a Shopping Information Retrieval System using Deep Learning Methods

Teaching Assistant

SHARIF UNIVERSITY OF TECHNOLOGY (SUT)

• Natural Language Processing, Dr. Ehsaneddin Asgari

• Probability and Statistics, Dr. Ali Sharifi

• Database Design, Dr. Abbas Heydarnoori

• Operating Systems, Dr. Hossein Asadi

• Python Programming, Dr. Issa Moradnejad

• Digital System Design, Dr. Farshad Baharvand

• Digital Design, Dr. Laleh Arshadi

Junior Data Analyst

VIVETENNIS

• Developing and Analysing Robot Monitoring System

Undergraduate Student Internship

AIMEDIC

• Eye Disease Diagnosis using Artificial Intelligence

Tehran, Iran

Oct. 2022 - Apr. 2023

Tehran, Iran

Sep. 2020 - Jul. 2023

Tehran, Iran

Jun. 2022 - Aug. 2022

Tehran, Iran

Jul. 2021 - Sep. 2021

Iranian Azerbaijani NLP Pipeline

THE LANGUAGE MODEL, RESOURCES, AND COMPUTATIONAL PIPELINES FOR THE UNDER-RESOURCED IRANIAN AZERBAIJANI

3D Vision Transformers and Convolutional Models for Segmentation Tasks

BACHELOR'S THESIS ON 3D MRI BRAIN TUMOR SEGMENTATION

Azerbaijani to Farsi Translation

DEVELOPING JOEYNMT FRAMEWORK FOR TRANSLATING AZERBAIJANI TO FARSI USING TRANSFORMERS AND SEQ2SEQ MODELS

Iran

Jan. 2023 - May. 2023

Iran

Jan. 2022 - Jan. 2023

Iran

Jun. 2022

FEBRUARY 14, 2025

MAHSA AMANI · RÉSUMÉ

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Persian NER and Spell Corrector

FINE TUNING BERT MODEL FOR NAME ENTITY RECOGNITION AND LANGUAGE SPELL CORRECTION

Iran

May. 2022 - Jun. 2022

Persian QA Extractor

EXTRACTING QUESTIONS AND RESPECTIVE ANSWERS FROM A TEXT USING REGULAR EXPRESSIONS

Iran

April 2022

Turkish Preprocessing Pipeline

DEVELOPING A PREPROCESSING PIPELINE FOR TURKISH LANGUAGE

Iran

April 2022

Modern Information Retrieval

A PROJECT INCLUDING INDEXING, COMPRESSING, QUERY CORRECTION, LANGUAGE MODELS, CLASSIFIERS, AND CLUSTERING

Iran

Feb. 2021

TeleNurse

A LOGISTIC PROJECT FOR PROVIDING HEALTHCARE AND NURSING IMPLEMENTED USING PYTHON DJANGO, POSTGRESQL, AND DOCKER

Iran

Nov. 2022

Eye Disease Recognition

RECOGNITION OF 7 EYE DISEASES USING TRANSFER LEARNING IMPLEMENTED AS MY INTERNSHIP PROJECT

Iran

Sep. 2021