Mohammad AzariJafari

www.azarijafari.com

May 8, 1992 Tehran, Tehran Province, Iran mohammad.azarijafari@gmail.com m.azarijafari@stu.qom.ac.ir

Education

• M.Sc., Information Technology Engineering
Thesis: Use of Transfer Learning for Inference in Persian Language using English Language Data

University of Qom, Iran

2017 - 2020

Supervisor: Dr. Hossein Amirkhani GPA: 19.18 / 20.00

• **B.Sc.**, Information Technology Engineering

Shahrood University of Technology, Iran

Project: Designing and Developing an Online Examination Website to Evaluate Students Supervisor: Dr. Ali Bazghandi

2011 - 2016

Teaching Experiences

Lecturer
 Teaching MATLAB programming basics course in Department of Engineering.

University of Qom, Iran 2021 - 2022

• Course Instructor

Teaching web crawler design course with Python programming language.

FaraDars Online Education Platform

• Teaching Assistant

Teaching and supervising projects in Data Mining and Information Retrieval courses for multiple semesters in the Department of Computer Engineering.

2019 - present University of Qom, Iran

• Teaching Assistant

Teaching and supervising projects in 12 programming courses in the faculties of computer engineering, mechanical engineering, mathematics, and physics.

Shahrood University of Technology, Iran

2012 - 2016

2019 - 2021

Teacher
 Teaching ICDL to high school students.

Dr. Hesabi Institute, Iran

Honors & Awards

 $\bullet \;$ Ranked 1, among master students of IT Engineering at University of Qom.

2017 - 2020

• Ranked among top 2% in national university entrance exam in M.Sc. IT engineering.

2017

• Accepted in national entrance exams of magnet schools at middle and high school.

2003 & 2006

• Ranked 1, in the Student Mathematical Olympiad in Tehran province, Iran.

2005

Research Interests

• Machine Learning • Deep Learning • Natural Language Processing • Information Retrieval

Skills

• Programming/Scripting

Python, Matlab, C/C++, Fortran, SQL, HTML, CSS

• Libraries/Frameworks

Tensorflow, Keras, Sklearn, NLTK, Beautiful Soup, Selenium, Num Py, Pandas

• Tools/Platforms

Google Colab, Jupyter Notebook, Visual Studio, SPSS, Power BI, WordPress, LaTeX, ICDL, Git

Languages

Persian, English

Publications _

Journal papers

• AzariJafari, M., Amirkhani, H. (2023).

A Combined Approach of Ensemble Learning and Transfer Learning for Low-Resource Natural Language Inference. Expert Systems With Applications. (Under Review)

Amirkhani, H., AzariJafari, M., Faridan-Jahromi, S., Kouhkan, Z., Pourjafari, Z., & Amirak, A. (2023).
 FarsTail: a Persian natural language inference dataset.
 Soft Computing.

Conference papers

• **AzariJafari, M.** (2021).

A Survey on Word Embedding Techniques in Text Processing. 8th International Conference on Innovative Technologies in Science, Engineering and Technology. Athens, Greece.

• AzariJafari, M., Sadeghi, F., & Iranpour Mobarakeh, M. (2021).

An Overview of Natural Language Inference Datasets in English Language.

Fourth International Conference on Information Technology, Computer and Telecommunication Engineering, Tehran, Iran.

• AzariJafari, M. (2021).

An Overview of Natural Language Inference Datasets in Low-Resource non-English languages. 7th International Conference on Advance Research in Science Engineering & Technology. Dubai, United Arab Emirates.

AzariJafari, M., Sadeghi, F. (2021).

Data Mining Applications in Intelligent Public Urban Transportation Systems: A Review and Proposed Solutions. Eleventh National Conference on Electrical, Computer and Mechanical Engineering. Shirvan, North Khorasan, Iran.

Highlighted Projects

• Cross-Lingual Knowledge Transfer 2020 - present - Use of **Transfer Learning** techniques to overcoming training data scarcity in NLP tasks. - knowledge transfer from a data-rich source language to a data-poor target language. - Enhancing NLP in low-resource languages through **cross-lingual** knowledge transfer. · Occupational Medical Data Analysis 2021 - 2022 - Pattern recognition in workers' medical data in an automobile manufacturing company. - Predicting workers' traumas through mining frequent patterns and association rules. - Guiding physicians in accurate prevention, diagnosis, and treatment of traumas. - Assisting managers in allocating safer workspaces to effectively prevent harm to workers. • ML-based Prediction of ICU Stay Length 2020 - 2021

- Employing Machine learning to predict ICU stay length and optimize hospital bed usage.

- Enhancing Prediction accuracy using **Classification** and **Linear Regression** algorithms.

• Data Analysis using SPSS

2020

- Utilizing **SPSS** for the analysis of experimental hospital data in a **teamwork study**.

- Collaboration with gynecologists for the **statistical examination** of twin pregnancies.

Data Collection for Persian NLI Task

2018 - 2020

- Collecting the First Persian dataset for Natural Language Inference (NLI) task.

- Developing an advanced method to generate 10,000+ high-quality real-world samples.

- Publishing experimental results of prominent NLI models on FarsTail dataset in a paper. 🗹

- The result of teamwork at University of Qom Data Mining and Machine Learning Lab.

• Sentiment Analysis of Customer Reviews

2019

- Designing a web scraper to extract all customer reviews from an online store (DigiKala).

- Sentiment analysis by classifying reviews into sentiment classes using pretrained models.

- Utilizing **classification** and **regression** methods to predict customers' satisfaction rates.

• Wikipedia Languages Dependency Analysis

2017 - 2018

- Developing a Wikipedia web crawler to create a structured dataset of articles' languages.

- Identifying language dependencies by **classifying** articles into specific target languages.

- Creating a recommender system to aid the website contributors in translating vital articles.

Work Experiences

• Python Developer 2019 - present Contributing in numerous freelance projects specifically in the fields of Data Science. (Machine Learning, Deep Learning, Pattern Recognition, Text Mining, etc.)

• IT Specialist Inputting information into the system of General Department of Grain and Commercial Services. 2017

• Senior Programmer 2013 - 2017

Developing freelance projects C, C++, MATLAB, Fortran, and Python programming languages.

Scientific Memberships

Data Science Researcher University of Qom Data Mining and Machine Learning Lab.	2018 - present
• Continuous Member Iranian E-Commerce Scientific Association.	2021 - 2022
• Continuous Member Iranian Society of Engineering Education (ISEE).	2021 - 2022
• Coordination Committee Member International Conference on Distributed Computing and High Performance Computing (DCHPC).	2018

Referees

• Dr. Hossein Amirkhani

Assistant Professor Department of Computer Engineering & IT University of Qom, Iran amirkhani@qom.ac.ir • Dr. Yaghoub Farjami

Associate Professor Department of Computer Engineering & IT University of Qom, Iran farjami@qom.ac.ir • Dr. Amir Jalaly Bidgoly

Assistant Professor Department of Computer Engineering & IT University of Qom, Iran jalaly@qom.ac.ir