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Academic Experience **Sharif University of Technology, international campus**
Teaching faculty, 2024-current.

University of Tehran, international campus
Teaching faculty, 2024-2025.

University of Tehran
Teaching faculty, 2020-2022.

Education **Institute For Research In Fundamental Sciences - IPM**
Ph.D., Computer science, 2016-2023.
Thesis: Verification of Multi-Agent Learning Systems
based on Epistemic Logic.

University of Tehran, Tehran, Iran
MSc., Computer science, 2013-2016.
Thesis: Model Checking Multi-Agent Systems.
GPA: 3.9 *Rank 2nd*

Sharif University of Technology, Tehran, Iran
BSc., Computer science, 2005-2010.

Honors *Second Rank*, Iran CS Ph.D. Nationwide Entrance exam 2014
Bronze Medal, National Informatics Olympiad, Summer 2004
Bronze Medal, National Informatics Olympiad, Summer 2003
Diploma of Honor, Kharazmi National Festival of innovation, 2002
First Rank, In-State Electronic Olympiad 2002

Awards and Fellowships *IPM - Foundation*, Graduate scholarship 2016 - 2021
National Elite Foundation, Graduate fellowship 2013 - 2015
National Elite Foundation, Undergraduate fellowship 2007 - 2009

Languages & Skills **Persian** (native), **English** (intermediate)
Python, C++, Java, C#, and JavaScript
PostgreSQL, MySQL, SQL Server, and Oracle
TensorFlow, PyTorch, Scikit-learn, numpy, Repast, and NetLogo
OpenCV, Halcon, AtmelStudio, Unreal Engine, and Cocos2D-X

Research Experiences

**Meet MASKS: Integrating Distributed Knowledge
and Verification for Multi-Agent Systems**
2025; Journal: Soft Computing

**Linear Temporal Public Announcement Logic:
a new perspective for reasoning about
the knowledge of multi-classifiers**
2023; Bulletin of the Iranian Mathematical Society

**What does COVID-19 Testing Results Really Say?
The Real Statistics Concealed Behind the Accessible Data**
2021; Journal of Medical Virology, DOI: 10.1002/jmv.27173

**Understanding Epidemic Data and Statistics:
A case study of COVID-19**
2020; Journal of Medical Virology, DOI: 10.1002/jmv.25885

**A deeper look at COVID-19 CFR:
health care impact and roots of discrepancy**
2020; ResearchSquare, DOI: 10.21203/rs.3.rs-23962/v1

An epistemic logical view of Deep Neural Networks
2019; Fundamentals of Software Engineering (FSEN) 2019

Model Checking Multi-Agent Systems
2016; MSc Thesis, Under the supervision of Dr. Alizadeh.

**Assessing new conditions for secretary problem using
Multi-Agent Systems**
2013; IEEE - 13th Iranian Conference on Fuzzy Systems (IFSC)

Data-Mining Applications in Petroleum
2010; BSc Thesis, Under the supervision of Dr. Tabesh.

Teaching Experiences

Sharif University of Technology, international campus

Fundamentals of Programming	2024-2026
Data Structures	2025-2026
Advanced Programming	2024-2025
Discrete Structures	Spring 2025

University of Tehran, international Campus

Formal Methods	Fall 2024
Stat & Prob	Fall 2024
GEN Math 2	Fall 2024

University of Tehran

Fundamentals of Programming	Fall 2022
Advanced Programming	Spring 2020

Review for Journals	BMJ Open Journal of Medical Virology Neural Computing and Applications Springer Nature Trusted Reviewer	
Workshop Experiences	Linear Temporal Public Announcement Logic: a new perspective for reasoning about the knowledge of multi-classifiers 8th colloquium of Iranian Association of Logic	2021
	Data-Science in Industry Kish International Campus, University of Tehran	2021
	AI in Bussiness DMOND Meetups	2019
Teacher Assistant Experiences	University of Tehran Coding Theory, Dr. M.Noori	Fall 2014
	Sharif University of Technology Basic Programming (C++), Dr. A. Aavani	Fall 2007
	Advanced Programming (Java), Dr. A. Aavani	Spring 2007
	Design of Algorithms, Dr. Y. Tabesh	Spring 2007
	Basic Java Programming, Dr. A. Aavani	Fall 2006
Work Experiences	PersMed Co-Founder	2020-current
	University of Tehran, international Campus Technical Consultant	2019-2021
	DMOND Accelerator Technical advisor	2019
	Shaghayegh co. Strategy manager & Data scientist (Python)	2018 - 2019
	University of Tehran Technical advisor	2017-2019
	XroboX co., University of Tehran Science & Tech Park Senior game & back-end developer (Python and C++)	2016 - 2018
	University of Tehran College of Science Full-stack developer (Python, SQL, and Js)	2015
	MTN Irancell Software developer (IOT)	2015
	SIB co. Back-end developer (Python, Big Data)	2014-2015
	XroboX co., University of Tehran Science & Tech Park Senior C++ developer (Robotics, simulation, and modeling)	2013-2014
	SafaMed & Goharhonar Software & Web developer (C#, JS, MySQL & SQL-Server)	2009-2011
	Negaresh Rayaneh Poya Software developer (Image processing, C++)	2007-2009

Certifications

AI for Medicine

A 3-course specialization by deeplearning.ai on Coursera. Summer 2020
Verify at coursera.org/verify/specialization/GZCS4PVC GS4M

Advanced Data Science with IBM

A 4-course specialization by IBM on Coursera. Summer 2019
Verify at coursera.org/verify/specialization/GPL LKAHA6W4E

IBM Data Science Professional Certificate

A 9-course specialization by IBM on Coursera. Spring 2019
Verify at coursera.org/verify/specialization/B979WK32U9C3

Machine Learning with TensorFlow on Google Cloud Platform

A 5-course specialization by Google Cloud on Coursera. Spring 2019
Verify at coursera.org/verify/specialization/UWLWHS6PWUPT

Reasoning, Data Analysis, and Writing

A 3-course specialization by Duke University on Coursera. Fall 2016
Verify at coursera.org/account/accomplishments/specialization/certificate/Z7KFNT6WSJS6

Natural Language Processing with Classification and Vector Spaces

- By deeplearning.ai on Coursera. Summer 2020
Verify at coursera.org/account/accomplishments/certificate/YFKGPQG553JQ

Natural Language Processing with Probabilistic Models

By deeplearning.ai on Coursera. Summer 2020
Verify at coursera.org/account/accomplishments/certificate/KLA8ETV4F65E

Natural Language Processing with Sequence Models

By deeplearning.ai on Coursera. Summer 2020
Verify at coursera.org/account/accomplishments/certificate/N3ZGSBL3AH5K

Introduction to Genomic Technologies

By Johns Hopkins University on Coursera. Summer 2020
Verify at coursera.org/account/accomplishments/certificate/8G9ABP6QGWDF

Genomic Data Science with Galaxy

By Johns Hopkins University on Coursera. Summer 2020
Verify at coursera.org/account/accomplishments/certificate/VDZ8W72XG2KG

Python for Genomic Data Science

By Johns Hopkins University on Coursera. Summer 2020
Verify at coursera.org/account/accomplishments/certificate/6TPXUGCU3F8L

Dissertation **“Verification of Multi-Agent Learning Systems
based on Epistemic Logic”**

We recommend interpreting information using public announcement logic (PAL), an Epistemic Logic (EL) extension. We suggest the verification of developed systems through multi-classifier modeling. In fact, we introduce MASKS (Multi-Agent System Knowledge Sharing) as a PAL model to verify properties in classifiers. MASKS bridges logical verification methods to widely applied classifiers. The language of MASKS is based on EL, which simplifies information interpretation. We present a tool to apply the MASKS verification method on arbitrary classifiers. Here, a pointwise verification is applied, in which property satisfaction is evaluated for a single input instead of the whole system. Thus, a property set is fed to classifiers as input to verify a property for the system. Using MASKS, we also suggest a uniform information framework, which investigates information gathered by a group of classifiers and information provided by other sources. When classifiers agree on an answer, the input verifies the property for the system of classifiers. Additionally, we introduce the Linear Temporal Public Announcement Logic (LTPAL) model by combining PAL with Linear Temporal Logic (LTL) to extend the model’s expressiveness to interpret the model data-stream (DS) inputs. Usually, semi-continued DSs are a sequence of SFDs in which each frame is correlated to adjacent frames. This characteristic allows us to define actions in these types of inputs. To cover semi-continued DSs, we extend PAL to LTPAL. In LTPAL, a property can be defined for consecutive inputs, which leads us to define a verification method for a DS over multiple classifiers. The language of LTPAL allows us to define actions and investigate their occurrences. It is also possible to identify classifiers that infer that some action has occurred.

- References **Majid Alizadeh**, Associate Professor of Computer Science, University of Tehran
Email: majidalizadeh@ut.ac.ir
Mohammad Ganjtabesh, Professor of Computer Science, University of Tehran
Email: mgtabesh@ut.ac.ir
Ali Movaghar, Professor of Computer Engineering, Sharif University of Technology
Email: movaghar@sharif.edu