















# HAMIDREZA MAHINI

## Assistant Professor

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## LINKS

 0000-0002-5995-1738	 hamidreza-mahini.github.io	 LinkedIn Profile
 Google Scholar Profile	 github.com/hamidreza-mahini	 ResearchGate Profile
 Publons Profile	 Mathworks Community Profile	 Academia Profile

## EDUCATION

2016	<b>Ph.D. Degree</b>	 Science & Research branch (SRBIAU), Islamic Azad University
	<b>Field/Major</b> Computer Software Systems Engineering	
	 <b>Dissertation</b> "Game Theory Approach to Resource Allocation in Peer to Peer Video Streaming"	
	 <b>Supervisor</b> Dr. Mehdi Dehghan Takht Fooladi	
	 <b>Advisors</b> Dr. Hamidreza Navidi and Dr. Amir Masoud Rahmani	
	★ <b>GPA</b> 19.08 of 20	
2010	<b>M.Sc. Degree</b>	 Iran University of Science and Technology (IUST)
	<b>Field/Major</b> Information Technology Engineering – Secure Communications	
	 <b>Thesis</b> "A Scalable IP Lookup Scheme in Internet Routers"	
	 <b>Supervisor</b> Dr. Reza Berangi	
	★ <b>GPA</b> 16.03 of 20	
2010	<b>B.Sc. Degree</b>	 Iran University of Science and Technology (IUST)
	<b>Field/Major</b> Computer Software Engineering	
	 <b>Thesis</b> "Blur Identification in Linear Motion-Blurred Images using Artificial Neural Networks"	
	 <b>Supervisor</b> Dr. Mohsen Ebrahimi Moghaddam	
	★ <b>GPA</b> 16.72 of 20	

## AWARDS

May 2002	1 <sup>th</sup> place in the field of programming - Second National Skills Olympiad (Provincial stage)
June 2002	4 <sup>th</sup> place in the field of programming - Second National Skills Olympiad (National stage)
May 2004	2 <sup>th</sup> place - ACM trial competition (North Region of Iran)

## EXPERIENCE

1/2011 – Present	<b>Academic Staff</b>	Islamic Azad University Gorgan branch
	Assistant Professor in the Computer Engineering Department	
8/2015 – 5/2016	<b>Director of Information and Communication Technology office</b>	Islamic Azad University Gorgan branch
9/2014 – 9/2015	<b>Mathematics Teacher</b>	Soroush High School
7/2011 – 1/2013	<b>Director of Information and Communication Technology office</b>	Islamic Azad University Gorgan branch
3/2009 – 7/2011	<b>Head of Computer Engineering Department</b>	SAMA Technical and Vocational Training College Gorgan branch
7/2008 – 12/2008	<b>Vice-President for Research and Technology</b>	University of Applied Science and Technology Gorgan Khane Kargar branch
7/2008 – 12/2008	<b>Head of Industry Department</b>	University of Applied Science and Technology Gorgan Khane Kargar branch
7/2005 – 3/2007	<b>Programmer and Project Manager</b>	SATER Computer Systems Development Company
6/2003 – 9/2003	<b>Programmer</b>	Booria CAD, CAM Systems Company

## SKILLS

### • Scientific Tools and Simulators

- MATLAB
- OMNet++ (Discrete Event Simulator)
- CLIPS (A Tool for Building Expert Systems)

### • Programming and Scripting Languages

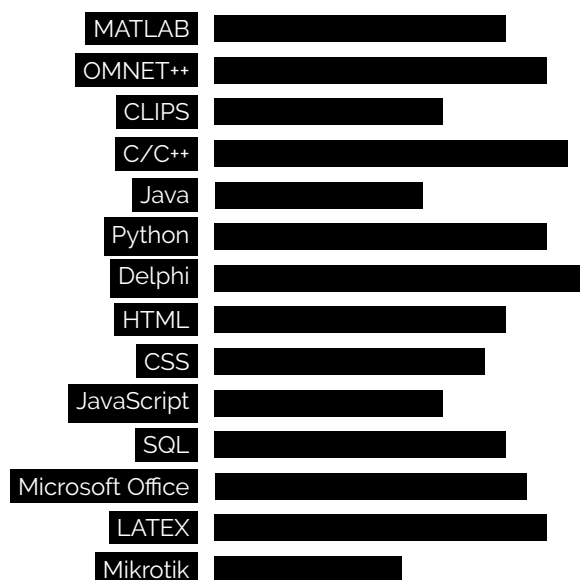
- C/C++
- Java
- Python
- Delphi
- HTML
- CSS
- JavaScript
- SQL

### • Documentation

- Microsoft Office
- L<sup>A</sup>T<sub>E</sub>X

### • Computer Networks

- MTCNA (Certificate Number: 1512NA428)



## ⚙️ INDUSTRIAL PROJECTS

- Setting up a video conferencing server based on Jitsi meet for the Golestan region of Iran Telecommunication company
- Designing and implementing a WiFi push notification system based on Raspberry Pi for the Golestan province ADSL subscribers of the Iran Telecommunication company
- Project manager in design and Implementing the Wireless Infrastructure of Gorgan Islamic Azad University
- Member of the Steering Committee in the Islamic Azad University BPMS Project
- Senior programmer in Diet software project, which is a medical application
- Senior programmer in Skin Care software project, which is a medical application
- Senior programmer in Sabt Sherkat software project, which is a legal and automation application for Africa holding Corporation.
- Senior programmer in Iran Termeh software project, which is a textile application
- Senior programmer in Carpet Weaving software project, which is a textile application

## 🏛️ TEACHING

I have offered a couple of computer science and engineering courses from Fall 2006 in many colleges and universities in Iran, which some of them are listed below:

### UNDERGRADUATE COURSES

- Computer Networks
- Web Design and Development
- Data Structures and Algorithms
- Design and Analysis Algorithms

### GRADUATE COURSES

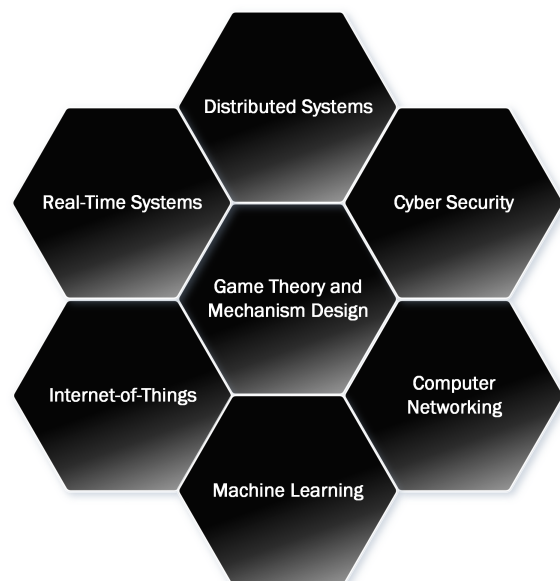
- Game Theory
- Advanced Computer Networks
- Real-Time Embedded Systems



Some of my video lectures can be visited at <https://www.aparat.com/MahiniAcademy>.

## 🔍 RESEARCH INTERESTS

- **Game Theory and Mechanism Design**
- **Computer Networking**
  - Multimedia Networks
  - High-Speed Networks
- **Distributed Systems**
  - Cloud Computing
  - Fog Computing
  - Edge Computing
- **Cyber Security**
  - Intrusion Detection and Prevention Systems
- **Real-Time Systems**
- **Internet-of-Things (IoT)**
- **Machine Learning**



## ★ RESEARCH PROJECTS (SCIENTIFIC GRANTS)

2013-2014	<b>Design a Wireless Intrusion Detection and Prevention System against the Man-In-The-Middle Attack</b>	SAMA Technical and Vocational Training College Gorgan branch
	The leader of the project	
2011-2012	<b>Design and Implementation of SAMA Schools Web Site</b>	SAMA Technical and Vocational Training College Gorgan branch
	The leader of the project	

## 👤 PH.D. STUDENTS

2016-Present	<b>Mehrdad Asadi</b>	Ph.D. candidate in Computer Software Systems
	<ul style="list-style-type: none"> <li>• Co-Supervised with Prof. Mahmoud Fathy</li> <li>• <i>Fog/Cloud computing based safe driving assistant model in Intelligent Transportation Systems</i></li> </ul>	
2016-Present	<b>Yousef Ostadi</b>	Ph.D. candidate in Computer Software Systems
	<ul style="list-style-type: none"> <li>• <i>Game theory approach to caching mechanism in mobile edge computing</i></li> </ul>	
2017-Present	<b>Fatemeh Babaei</b>	Ph.D. candidate in Applied Mathematics
	<ul style="list-style-type: none"> <li>• Co-Supervised with Prof. Hamidreza Navidi</li> <li>• <i>Cost and resource allocation in bankruptcy problem</i></li> </ul>	
2017-Present	<b>Ali Jannati Ataei</b>	Ph.D. candidate in Computer Software Systems
	<ul style="list-style-type: none"> <li>• <i>Resource management in fog/cloud based Internet-of-Healthcare-Things (IoHT)</i></li> </ul>	

## 👤 M.SC. STUDENTS

2020-Present	<b>Aref Aberi</b>	M.Sc. student in Computer Software Engineering
	<ul style="list-style-type: none"> <li>• <i>A cooperative approach to cache placement in cloud/fog computing</i></li> </ul>	
2020-Present	<b>Mohammad Hossein Nemati Ghazvini</b>	M.Sc. student in Computer Software Engineering
	<ul style="list-style-type: none"> <li>• <i>A game theory approach to proactive cache placement in cloud/fog computing</i></li> </ul>	
2018-Present	<b>Mobin Taneh</b>	M.Sc. student in Computer Software Engineering
	<ul style="list-style-type: none"> <li>• <i>Design and implementation of an adaptive video conferencing system based on WebRTC</i></li> </ul>	
2015-2019	<b>Mobin Koosha</b>	Graduated with M.Sc. in Computer Software Engineering
	<ul style="list-style-type: none"> <li>• <i>Resource allocation in real-time fog computing-based IoT services</i></li> </ul>	
2015-2020	<b>Seyyed Mohammad Javad Mirkatooli</b>	Graduated with M.Sc. in Computer Software Engineering
	<ul style="list-style-type: none"> <li>• <i>Virtual-Machine trading in a cloud federation to maximize cloud providers' profits</i></li> </ul>	

2014-2018	<b>Azar Ghamangiz</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Dealing with RPL attacks in the Internet-of-Things based on 6LoWPAN</i>	
2016-2018	<b>Hamed Molaeinejad</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Trigger strategy approach to resource allocation in Peer-to-Peer systems</i>	
2016-2018	<b>Mahboubeh Aghili</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Smart data pricing in a cloud federation</i>	
2016-2018	<b>Rouhollah Lolaei</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Byzantine fault tolerable clock synchronization in the real-time distributed systems against</i>	
2015-2018	<b>Mina Shahini</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Resource allocation in fog computing based Internet-of-Things</i>	
2015-2018	<b>Esmail Gorzin</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Resource allocation in an adaptive P2P video streaming based on HetNets</i>	
2014-2017	<b>Effat Khorraminia</b>	Graduated with M.Sc. in Computer Software Engineering
	• <i>Game theory approach to incentive mechanism in the peer-to-peer video streaming overlay network</i>	

## PUBLICATIONS

### JOURNALS

1. **Hamidreza Mahini**, Amir Masoud Rahmani, and Seyyedeh Mobarakeh Mousavirad. An evolutionary game approach to iot task offloading in fog-cloud computing. *The Journal of Supercomputing*, pages 1–28, 2020a
2. **Hamidreza Mahini** and Seyyedeh Mobarakeh Mousavirad. Wifi intrusion detection and prevention systems analyzing: A game theoretical perspective. *International Journal of Wireless Information Networks*, 27(1):77–88, 2020
3. **Hamidreza Mahini**, Reza Hajisheykhi, and Mina Shahini. Qos and traffic aware greedy resource allocation in foggy internet of things. *International Journal of Communication Networks and Distributed Systems*, 25(1): 95–121, 2020b
4. **Hamidreza Mahini**, Mehdi Dehghan, Hamidreza Navidi, and Amir Masoud Rahmani. Game theory approach to peer-to-peer video streaming: a comprehensive survey. *International Journal of Autonomous and Adaptive Communications Systems*, 11(4):333–364, 2018
5. **Hamidreza Mahini**, Mehdi Dehghan, Hamidreza Navidi, and Amir Masoud Rahmani. Peer-assisted video streaming based on network coding and beer-quiche game. *AEU-International Journal of Electronics and Communications*, 73:34–45, 2017
6. **Hamidreza Mahini**, Mehdi Dehghan, Hamidreza Navidi, and Amir Masoud Rahmani. Game-plive: a new game theoretic mechanism for p2p live video streaming. *International Journal of Communication Systems*, 29(6): 1187–1203, 2016
7. S Mobarakeh Moosavirad, Peyman Kabiri, and **Hamidreza Mahini**. Rashnu: a wi-fi intrusion response scheme. *Security and Communication Networks*, 8(12):2070–2078, 2015
8. S Mobarakeh Moosavirad, Peyman Kabiri, and **Hamidreza Mahini**. Rssat: A wireless intrusion detection system based on received signal strength acceptance test. *Journal of Advances in Computer Research*, 4(1): 65–80, 2013
9. **Hamidreza Mahini** and Reza Berangi. Eastfile: An energy aware, scalable, and tcam based fast ip lookup engine. *International Journal of Computer Networks & Communications*, 4(5):35–55, 2012

10. **Hamidreza Mahini**, Reza Berangi, and Alireza Mahini. Mlet: a power efficient approach for tcam based, ip lookup engines in internet routers. *International Journal of Computer Networks and Communications*, 2(3): 13–26, 2010
11. **Hamidreza Mahini**, Alireza Mahini, and Javad Ghofrani. Xdanng: Xml based distributed artificial neural network with globus toolkit. *International Journal of Computer Science and InformationSecurity*, 2(1), 2009

## INTERNATIONAL CONFERENCES

1. Alireza Mahini, Reza Berangi, **Hamidreza Mahini**, and Hossein Mohtashami. Scalable, low power and storage efficient parallel lookup engine architecture for ip packets. In *2008 15th International Conference on Mixed Design of Integrated Circuits and Systems*, pages 611–617. IEEE, 2008a
  2. Alireza Mahini, Reza Berangi, Hossein Mohtashami, and **Hamidreza Mahini**. Low power and storage efficient parallel lookup engine architecture for ip packets. In *Computer Society of Iran Computer Conference*, pages 718–722. Springer, 2008b
  3. Alireza Mahini, Reza Berangi, Seyedeh Fatemeh, Khatami Firouzabadi, and **Hamidreza Mahini**. Low power tcam forwarding engine for ip packets. In *MILCOM 2007-IEEE Military Communications Conference*, pages 1–7. IEEE, 2007
  4. Mohsen Ebrahimi Moghaddam, Mansour Jamzad, and **Hamidreza Mahini**. Motion blur identification in noisy images using feed-forward back propagation neural network. In *International Workshop on Intelligent Computing in Pattern Analysis and Synthesis*, pages 369–376. Springer, 2006
- Also, dozens of papers in the national conferences in Persian in the form of oral presentations and posters

## REVIEWER

I have been a reviewer in some prominent journals. Some of them are listed below:

- *The Journal of Supercomputing*
- *Multimedia Systems*
- *IEEE Transactions on Circuits and Systems for Video Technology*
- *International Journal of Electrical and Computer Engineering (IJECE)*
- *Security and Communication Networks*
- *Journal of Advanced Mathematical Modeling*

The verification of the claim can be found in my *Publons profile*.

## MEMBERSHIP IN SCIENTIFIC SOCIETIES



Graduate Student Member Since 2014 to 2016

## LANGUAGES

- **Persian** - Native Language
- **English** - Speak fluently and read/write with high proficiency