



## SINA OJAGHI

### Sabbatical PhD Students

DoB: 19/9/1995

Marital Status: Single

Military Service: Educational Exemption

As a Ph.D. student in Computer Architecture at the University of Tehran, my academic journey has been deeply committed to research and education. Having served as an instructor at both Hamedan University of Technology and the University of Tehran, I've contributed significantly to my students' academic growth while honing my teaching and research skills. Currently, I balance my roles as IT Manager at HamVta Arya Co. and a hardware programmer at Afra Turbine Energy Co., applying my technical expertise to tackle real-world challenges. At my core, a passion for discovery and innovation propels me forward. My extensive involvement in research and development projects underscores my dedication to advancing computer architecture. I'm now seeking a study opportunity to enhance my research capabilities further, aiming to offer groundbreaking insights into hardware security and the applications of spiking neural networks in sustainable technologies.

### Contact



oj.sina@gmail.com  
sina.ojaghi@ut.ac.ir



(+98)9181110368



+1 (252) 251-8451



sinaoj.com



P23, marvi , W kamali , Pounak, Tehran, Iran

### Education

#### PhD in Computer Engineering

Branch: Computer architecture  
Institute/University: Tehran university  
Tehran, Iran  
GPA: 18.05 ( 3.61 / 4 )  
2020 - Present

#### Master of Computer Engineering

Branch: Computer architecture  
Institute/University: islamic azad university  
science and research branch  
Tehran, Iran  
GPA: 18.45 ( 3.69 / 4 )  
2017 - 2019

#### Bachelor of Computer Engineering

Branch: Computer architecture of digital  
systems  
Institute/University: Hamadan University of  
Technology  
Hamadan, Iran  
GPA: 16.34 ( 3.27 / 4 )  
2013 - 2017

### Research

#### Design and Implementation of Remote Side-Channel Attacks and Countermeasures on Spiking Neural Networks

Publisher : University of Tehran  
Ph.D Proposal

#### Design and manufacture of audio processor for smartening domestically produced vehicles

Publisher : Islamic Azad University, Science and Research Branch  
Master Thesis

#### Transfer voice data under secure protocol and use it in smart homes

Publisher : hamedan university of technology  
Bachelor Thesis

#### Object Detection for Vehicles with Yolo

Publisher : 2024 IEEE 22nd World Symposium on Applied Machine Intelligence and Informatics (SAMII)  
January 2023

Link : <https://ieeexplore.ieee.org/document/10432884>

#### Iranian Vehicle Images Dataset for Object Detection Algorithm

Publisher : Journal of AI and Data Mining  
May 2023

Link : [https://jad.shahroodut.ac.ir/article\\_3164.html](https://jad.shahroodut.ac.ir/article_3164.html)

#### Stress-strain modeling of an Al-Mg using an artificial neural network

Publisher : 3 rd International Conference on Electrical, Computer and Mechanical Engineering  
Link : <https://civilica.com/doc/1128854/>

#### Modeling of AZ52 flow curve at high temperature by implicating the genetic algorithm method

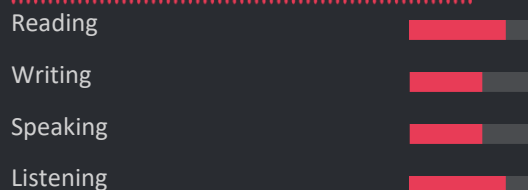
Publisher : 3 rd International Conference on Electrical, Computer and Mechanical Engineering  
Link : <https://civilica.com/doc/1128855/>

### Honors






- the rank of 13 PhD among the candidates in the field of computer architecture in 1399 (2020)
- first rank in the master's degree among the students of Islamic Azad University, Science and Research Branch, entered in 2017
- second rank in the undergraduate level among the students of Hamadan University of Technology, entered in 2013
- first place in ACM competitions in Hamedan province
- score 513 on the Tolimo language test

## Language

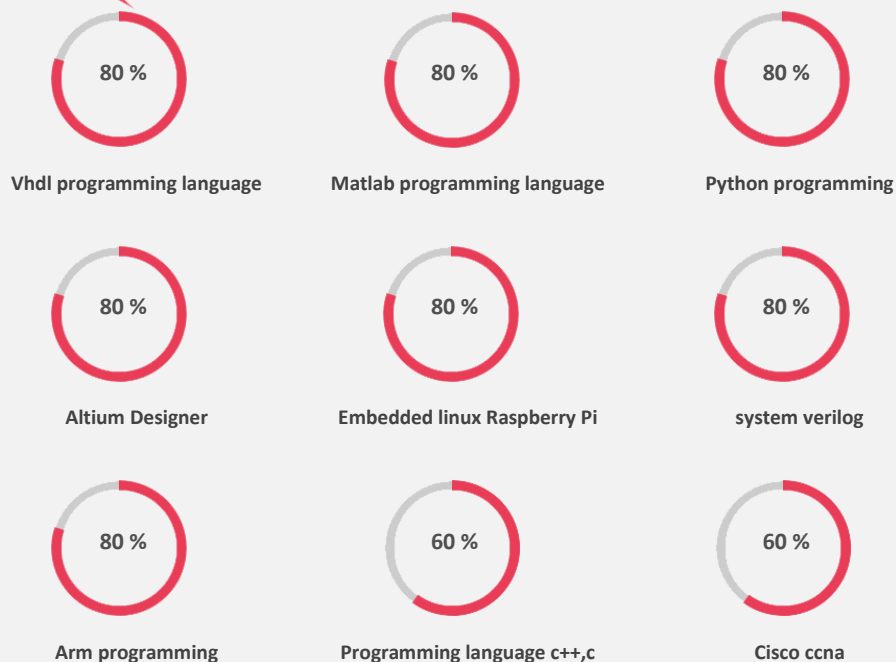
### English



## Social Network

-  [linkedin.com/in/sina-ojaghi](https://www.linkedin.com/in/sina-ojaghi)
-  [researchgate.net/profile/sina-ojaghi](https://www.researchgate.net/profile/sina-ojaghi)
-  [join.skype.com/invite/hfvbhgg7dm3](https://join.skype.com/invite/hfvbhgg7dm3)
-  [t.me/sinaoj](https://t.me/sinaoj)
-  [github.com/sinaojaghi](https://github.com/sinaojaghi)

## Skills



## Certificates

- Selecting plans and projects as the top project of the computer department of Hamadan University of Technology to enter the Elcamp exhibition in Hamadan province
- Selection of plans and projects as the top project of the computer department of Hamadan University of Technology to enter the exhibition of research, technology and market technology of Hamadan province
- Selection of plans and projects as the top project of the Computer Department of Hamadan University of Technology Smartening of smart hospitals to lead to a conference on the role of economic prosperity in the prevention of social crimes

## Projects

### Ideation, design and implementation of targeted internship site

For : Hamadan University of Technology  
2016

The site we designed worked for about 3 years at the university and then became inaccessible due to the more comprehensive Golestan system.

Link : <http://intern.hut.ac.ir>

### Verification Calculator II & III & RISC-V

For : Dr. siamak mohammadi  
January 2021

This verification includes: circuit performance simulation and design of a Stimuli production platform and Golden Model design and Checker design and Scoreboard design and implementation of Coverage techniques

### Training and replacing the heavy part of the circuit with a neural network and accelerating the circuit

For : Dr. Modaresi  
June 2021

### Investigation and detection of hardware malware in AES-T300 RS232-T400

For : Dr. siamak mohammadi  
June 2021

### Automatic annotation of photos with genetic algorithm in MATLAB environment

For : Hamadan University of Technology  
2017

computer vision lesson project and this project was used to identify the status of the signature and the owner of the signature in banking operations.

## Data transfer in FPGAs (UART) in VHDL language in ISE environment

For : Hamadan University of Technology  
2015

Data transfer lesson project

## MIPS processor design with some commands in VHDL language in ISE environment

For : Hamadan University of Technology  
2009

Computer architecture lesson project

### Work Experience

#### Instructor artificial intelligence

Hamedan University of Technology

Hamadan, Iran

September 2021 - October 2023

##### Tasks and Achievements :

■ Department of Computer and IT Engineering  
and Department of Electrical Control and  
Electronics Engineering

#### Secretary and speaker of Cyber-Physical Systems society if iran

CPSSI

Tehran, Iran

March 2022 - Present

##### Tasks and Achievements :

■ link: <https://cpssi.ir/>

#### IT Manager

HamVeta Co.

Tehran, Iran

September 2023 - June 2024

##### Tasks and Achievements :

■ Developing and implementing IT policies and  
procedures to streamline processes and enhance  
security

#### R & D

Nabz

Tehran, Iran

November 2019 - April 2020

##### Tasks and Achievements :

■ link : <https://nabzgroup.com/>

#### T.A. Functional Verification of HDL Models ( Master & PhD )

University of Tehran

Tehran, Iran

September 2021 - Present

#### T.A. Computer network ( Master & Bachelor )

University of Tehran

Iran

#### T.A. Computer architecture ( bachelor of science )

Hamedan university of technology

Hamadan, Iran

December 2015 - December 2016

#### Instructor research methods

Hamedan University of Technology

Hamadan, Iran

September 2021 - October 2023

##### Tasks and Achievements :

■ Department of Electrical Control and  
Electronics Engineering and Department of  
Computer and IT Engineering

#### Hardware Programmer

Afra Turbine Energy Co.

Hamadan, Iran

September 2022 - Present

##### Tasks and Achievements :

■ Designed and implemented embedded  
software for microcontroller-based hardware  
systems

■ Developed firmware updates to improve  
functionality and performance of hardware  
devices

#### Idea developer and senior consultant of targeted internship site

hamedan university of technology

Hamadan, Iran

September 2016 - January 2019

##### Tasks and Achievements :

■ link: <http://intern.hut.ac.ir/>

#### T.A. Hardware Security and Trust ( Master & PhD )

University of Tehran

Tehran, Iran

January 2023 - Present

#### T.A. Performance Evaluation ( Master & PhD )

University of Tehran

Tehran, Iran

December 2021 - Present

#### T.A microprocessor and assembly language ( bachelor of science )

Hamedan university of technology

Hamadan, Iran

September 2015 - June 2016

#### T.A. logic circuits ( bachelor of science )

Hamedan university of technology

Hamadan, Iran

December 2015 - June 2016

**T.A. Discrete Mathematics ( bachelor of science )**

Hamedan university of technology

Hamadan, Iran

December 2015 - June 2016

**Teaching microprocessor and assembly language**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

September 2016 - June 2017

**Teaching Digital Electronics**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

December 2016 - June 2017

**Teaching algorithm design**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

December 2015 - June 2016

**Supporter, group manager**

Qalam Chi Educational Foundation

Hamadan, Iran

September 2015 - May 2017

**Teaching computer**

School Dar ol Foonon Hamedan

Hamadan, Iran

September 2014 - May 2016

**Teaching Data transfer and telecommunications**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

December 2016 - June 2017

**Teaching Computer architecture**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

February 2015 - January 2017

**Teaching logic circuits**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

September 2014 - December 2015

**Teaching c programming language**

Computer Science Association in Hamadan University of Technology

Hamadan, Iran

September 2014 - December 2015

**Laptop and computer software and hardware repairs**

DPC

Hamadan, Iran

May 2013 - September 2014

**Teaching IOT**

School Khadije kobra tehran

Tehran, Iran

September 2017 - May 2019

## References

**Dr. Siamak Mohammadi**

Computer department group manager Tehran University  
smohammadi@ut.ac.ir

**Dr. Ahmad Khonsari**

Member of the Scientific Council of the IPM Basic Knowledge Research Institute  
ak@ipm.ir

**Dr. Somaye Jafar Ali Jasbi**

Computer department group manager islamic azad university science and research branch  
s.jassbi@srbiau.ac.ir

**Dr. Ahmad Khademzade**

Deputy of Iran Telecommunication Research Center and member of the Scientific Council of Islamic Azad University, Science and Research Branch  
a\_khademzadeh@azad.ac.ir

**Dr. Ehsan Aerabi**

PhD student of Gronoble University of Technology and former faculty of Hamadan University of Technology  
e\_aerabi@comp.iust.ac.ir

**Dr. Mir Hossin Dezfoulial**

Computer department group manager Bu ali sina university  
dezfoulial@basu.ac.ir