

Sepand Haghighi

Gender: Male

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Birth Date: 9 March 1993

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Marital Status: Single

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Place Of Birth: Rasht, Iran

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**Faculty of Electrical Engineering, Amirkabir University
of Technology**

Education :

2014-2015 Data Science Specialization on Coursera By Johns Hopkins University (**Credits : 9/9** , **Total Grade : 95.8/100 (3.78/4)**)

Instructors : [Dr. Roger D. Peng](#) - [Dr. Jef Leek](#) – [Dr. Brian Caffo](#)

2011-Present Bachelor of Science in Electronic Engineering, Amirkabir University of Technology, Tehran, Iran. (**Credits : 130/140** , **Last Year GPA : 3.36/4** , **Last Two Year GPA : 3.28/4**)

Advisor : [Dr. Majid Shalchian](#)

2010-2011 Pre-University Degree, [MirzaKoochak Khan High School](#), under the supervision of NODET

(National Organization for Developing Exceptional Talents), Rasht, Iran. **GPA: 19.40/20**

2007-2010 High School Diploma majoring mathematics, [MirzaKoochak Khan High School](#), National Organization for Developing Exceptional Talents, Rasht, Iran. **GPA: 18.40/20**

Research Interest:

-Machine Learning

-Neural Network

- Embedded System Design

-Robotic

-Optoelectronic

-Digital Electronic

Awards and Honors:

2009 Achieving the **3rd** Place in **11th Khwarizmi Youth Award**, Field of Electrical and Electronic Inventions, Awarded by President, Ministry of Science, Research and Technology and Ministry of Education, Tehran, Iran

2009 Achieving the **4th** Place in **11th Khwarizmi Youth Award**, Field of Electrical and Electronic Inventions, Awarded by President, Ministry of Science, Research and Technology and Ministry of Education, Tehran, Iran,

2009 Achieving the **5th** Place in Junior Soccer 1 * 1 League, **IranOpen2009**, Iran, Qazvin, With MirzaKoochakkhan High School Team, "**DIZ** "

2008 Achieving the **3rd** Place in "Fekre Bartar" Guilan Science and Technology Park Idea and Invention Competition, Ministry of Science, Research And Technology

2007 Achieving the **10th** Place in Junior Extra Path Finder League, **IranOpen2009**, Iran, Tehran, With MirzaKoochakkhan High School Team, "**Speedo**"

2006 Achieving the **10th** Place in Junior Extra Path Finder League, **Helli Cup**, Iran, Tehran, With MirzaKoochakkhan High School Team, "**Speedo**"

2006 Achieving the **1rd** Place in Junior Extra Path Finder League, **Helli Robosaz**, Iran, Tehran, With MirzaKoochakkhan High School Team, "**Speedo**"

Publications:

Papers:

Reza Vatani, Pooyan Piredeir, Sepideh Rahmatinia, Sepand Haghighi, Seyedeh Reyhaneh Kammali, "[Damash 2013 Soccer 2D Simulation Team Description Paper](#)" RoboCup Symposium , 2013

Sepand Haghighi, Maoud Deldar Moghadam, "Connect 4 1-Wire Temperature Sensors To 8Bit Microcontroller And Delay Approximation " (Unofficial)

Patent:

"**Non-Polar Charger**", Pub.No:390120014, Data of Filling:Feb,10,2012,(Pending)

"**Smart Pen**", Registration No.:59831, Pub Date:May,12,2011, Data of Filling:Jul,3,2010(Registered in Iran, Certificate Of Grant of Patent) , ([Jpg](#))

"**Optical Egg Tester**", Registration No.:59214, Pub Date:Jun,15,2009, Data of Filling:May,10,2009(Registered in Iran, Certificate Of Grant of Patent) , ([Jpg](#))

"**AVR Wireless Programmer With Ability Of Encoding**" , Registration No.:59831, Pub Date:Jul,20,2009, Data of Filling:Jun,25,2009(Registered in Iran, Certificate Of Grant of Patent) , ([Jpg](#))

Presentation:

Fall 2015 “Multimedia Signals Semantic Processing”, Multimedia Course Final Presentation

Winter2014 “Thermoelectric Design and Smart Wall Design”, Research and Report Methods Final Presentation

Teaching Experience:

Fall 2013 Teaching Assistant (C++ Programming [Dr.Ali Pourmohammad](#)) , AmirKabir University Of Technology

14Dec 2012 Introduction to Machine Learning , SalamCup 2012, Tehran , Iran

Jun 2012-Aug2012 AVR Microcontroller , [MirzaKoochakhan High School](#) , Rasht , Iran

Responsibility and Membership:

Jun 2015-Present Researcher at Photonic Research Lab (AmirKabir University Of Technology) (Internship)

2013-Present Student Member of IEEE (Membership Number : 92581831)

2013-Present Member of IEEE Computational Intelligence Society

2012-Present Machine Vision System Designer of Marlik Cansat Team(Finalist in [2nd Iran Cansat Competition](#))

2011- Present Founder and Director Of Talent Search of [Marlik Institute of Technology and Innovation](#)

2009-2012 Manager And Electronic Board Designer Of DIZ Micromouse Team(Joined [Marlik Inst.](#))

2009 Captain And Electronic Board Designer Of DIZ Junior Soccer Team(Participated In IranOpen 2009)

2007-2009 Electronic Board Designer Of Spinas Junior Rescue Team(Participated In IranOpen 2008)

2006-2009 Electronic Board Designer Of Speedo Junior Extra Path Finder Team(Participated In HelliRobosaz,HelliCup,IranOpen 2007,2008)

2009 Scientific head of 5th Seminar of Exceptional Talents Schools, named as “Jelvehaye Sampad”

Other Project:

Nov 2012-Nov 2013 Small Tissue Processing , Electronic Board Designer And Programmer

Jun 2015 Developing New Error Detection Package In Python (Data Transmission Course Final Project) [[Package Page](#)]

Winter2014 “Design A Full-Adder By ULPFA In L-Edit” , VLSI System Design Final Project (Best Project)

Fall 2014 “Design And Implemetation Of a BCD-ADDER in Proteus “ , Logic Circuits And Digital Design Final Project

Fall 2015 “Implementation Of Horn-Schunck And Lucas Kanade Algorithm For Optical Flow In Matlab” , Multimedia Systems Final Project

Skills:

Engineering Softwares: Matlab(Octave)-Orcad-Altium Designer-Proteus

Programming Languages: Pyhton – Ruby – C/C++ -- Basic-R-VHDL-Verilog

IDE : Visual Studio – RAD Studio – Bascom – MPLAB – MicroCode Studio – Keil

General Softwares: Microsoft Office (Word, PowerPoint, Excel)

Technical skills:

- Embedded System Programming (PIC,AVR,ARM Microcontroller)
- Electronic Board Designing
- Digital Image Processing
- Making PCB At Home Using : Marker-Toner Transfer-Laminator-Letraset

Other Education:

Jul 2014 Coding The Matrix Under Instruction of [Philip Klein](#) Provided By [Brown University](#) in Coursera ([Pdf](#))

Feb 2013 Linear And Discrete Optimization Under Instruction of [Friedrich Eisenbrand](#) Provided By [Ecole Polytechnique Federale de Lausanne](#) in Coursera ([Pdf](#))

Apr 2013 Computational Neuroscience Under Instruction of [Adrienne Fairhall](#) , [Rajesh P.N.Rao](#), Provided By [University Of Washington](#) in Coursera ([Pdf](#))

Jan 2013 Computation For Data Analysis Under Instruction of [Prof.Roger D.Peng](#) , Provided By [Johns Hopkins Bloomberg](#) in Coursera (With Distinction) ([Pdf](#))

October 2012-December 2012 Neural Network For Machine Learning Under Instruction of [Prof.Geoffrey Hinton](#), Provided By [University Of Totonto](#) in Coursera ([Pdf](#))

April 2012-July 2012 Machine Learning Under Instruction of [Prof.Andrew Ng](#) ,Provided By [Stanford University](#) in Coursera ([Pdf](#))

Dec2011 Executive MBA Under Instruction of [Mr.Masoud Mohsen Alhoseini](#) , Provided By [9th Best Idea Festival Yazd](#)

Dec2011 Entrepreneurship and Commercialization of ideas Under Instruction of Mr.Masoud Abiar,Provided By [9th Best Idea Festival Yazd](#),

Selected Courses:

- | | |
|---|--|
| - Linear Algebra (19.5/20) | - Computer Programming (19.3/20) |
| - Microprocessor And System Interface (18/20) | - Advanced Programming (17.5/20) |
| - Laser Electronic (18/20) | - Practical Machine Learning (100/100) |
| - Logic Circuit And Digital Design (18.21/20) | - Regression Models (100/100) |
| - VLSI System Design (16.5/20) | - Multimedia (19.5/20) |
| - Analog Communication (18.5/20) | |

References:

- [Dr.Majid Shalchian](#) (VLSI System Design)
(Assistant Professor – AmirKabir University Of Technology)
Email : shalchian@aut.ac.ir
- [Dr.Hassan Kaatuzian](#) (Photonic And Optoelectronic)
(Associate Professor – AmirKabir University Of Technology)
Email : hsnkato@aut.ac.ir
- [Dr.Saeed Sharifian](#) (Embedded System Design)
(Assistant Professor – AmirKabir University Of Technology)
Email : sharifian_s@aut.ac.ir
- [Dr.Ali Pourmohammad](#) (Applied Signal Processing)
(Part Time Lecturer – AmirKabir University Of Technology)
Email : pourmohammad@aut.ac.ir

Language Skills:

Persian: Native

English: Fluent

Hobbies:

Travelling: Historical and natural places (visiting and studying about cultural and historical aspects of other civilizations)

Poetry: Shams Langeroodi , A.H.Sayeh , Sohrab Sepehri , Khayam , Hafez

Sports: Swimming, Soccer

Computer Game: PES-FIFA-Call Of Duty-Silent Hill