



# Mohsen Biglari

Ph.D. in Computer Engineering

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## *Current Address:*

Department of Computer Engineering and Information Technology, Shahrood University, Shahrood, Semnan, Iran.  
P.O. Box 316

## Research Interests

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- Programming!
- Machine Learning
- Artificial Intelligence
- Computer Vision
- Image/Video Processing
- Multi-core/Parallel Programming

## Education

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### **Ph.D. Student in Artificial Intelligence**

Shahrood University, Shahrood, Semnan, Iran	2012-2017
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*Advisor:* Ali Soleimani

*Co-Advisor:* Hamid Hassanpour

*Thesis Title:* Vehicle Make and Model Recognition using Part-based Models

### **M.Sc. in Software Engineering**

University of Kashan, Kashan, Esfahan, Iran	2010-2012
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*Advisor:* Hossein Ebrahimpour-Komleh

*Thesis Title:* Face Detection and Recognition with Parallel Algorithms using CUDA

### **B.Sc. in Computer Engineering**

University of Kashan, Kashan, Esfahan, Iran	2006-2010
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*Advisor:* Ahmad Yoosofan

*Thesis Title:* A System for Translating Persian Sentences to English

### **Diploma in Mathematics and Physics Discipline**

Shahid Ghoddsi High School, Ghom, Iran	2002-2005
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Affiliated with the National Organization for Development of Exceptional Talents

## Honors and Awards

<b>Ranked 1<sup>st</sup></b> in Ph.D., Shahrood University of Technology	2017
Selected as the <b>Young Excelled in Science and Technology</b> in the Province	2017
<b>Winner of Annual Academic Award</b> of the Elite National Foundation of Iran	2016
<b>Ranked Top 10</b> Among All Ph.D. Students in Semnan, Iran	2015
<b>Ranked 1<sup>st</sup></b> in Two First Years of Ph.D., Shahrood University of Technology	2014
<b>Top Researcher</b> in Shahrood University of Technology	2014
<b>Top Researcher</b> in Shahrood University of Technology	2013
<b>3<sup>rd</sup> Place</b> in International AmirKabir Artificial Intelligence Competition on Face Recognition (AAIC2013), Tehran, Iran	2013
<b>Winner of Best Paper</b> Position in The 5 <sup>th</sup> Conference on Information and Knowledge Technology (IKT2013), Shiraz, Iran	2013
<b>1<sup>st</sup> Place</b> in Handwritten Farsi/Arabic Digits Recognition Competition of the 1 <sup>st</sup> Iranian Conference on Pattern Recognition and Image Analysis (PRIA2013), Birjand, Iran	2013
<b>Top Researcher</b> in University of Kashan	2011
<b>Ranked 1<sup>st</sup></b> in M.Sc., University of Kashan	2011
<b>2<sup>nd</sup> Place</b> in Region 5 of National Olympiad in Computer Engineering Field, Iran	2010
<b>Ranked 2<sup>nd</sup></b> in B.Sc., University of Kashan	2010

## Teaching Experiences

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### Lecturer

Fundamental Programming, Advanced Programming, Machine Language (Assembly), Data Structure Noore Danesh Institute	2012-2013
Design and Analysis of Algorithms Payam Nour University	2012-2013
Fundamental Programming, Advanced Programming, Design and Analysis of Algorithms, Machine Language (Assembly) Shahrood University Of Technology	2012-2013, 2015-2016
ACM Programming University of Kashan, Islamic Azad University of Kashan, Shahrood University Of Technology	2007-2011, 2013-2016
C# Programming, Java Programming, Jave Mobile (J2ME) Programming, Designing and Using DLLs University of Kashan	2010-2011
Android Programming Shahrood University Of Technology	2014-2016

### Teaching Assistant

Advanced Programming	2008
Machine and Assembly Languages	2007
Algorithm Design	2007
Data Structure	2007
C++ Programming	2007

## Projects

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<b>Implementation of Flight/Hotel Reservation Android/iOS Apps</b> One of the most complete reservation apps in Iran	2017
<b>Designing MadarYar Android App</b> First Persian baby care app for Iranians mothers	2015-Now
<b>Designing BazarKhodro Android/iOS App</b> An app for buying and selling vehicles	2015
<b>Designing ElecApps Android App</b> A Market for electrical apps	2015
<b>Designing an Automatic Face Detection and Recognition System</b> University of Kashan	2011-2012
<b>Designing an Automatic Fingerprint Recognition System</b> University of Kashan	2011-2012
<b>Designing an OCR System for Persian Digits Recognition</b> Shahrood University	2011-2013
<b>Designing a System for Managing Holiday Passengers</b> Kashan Department of Education	2008-2011
<b>Designing MBTranslator Translator Assistant Software</b> A software for Persian translators to create movies/series subtitles	2008-2013
<b>Designing a Windows-Mobile (two-side) CMS Application</b> An application for creating Mobile Applications without any coding, C#, J2ME, Android and iOS	2009-2016
<b>Designing BehNama Java Mobile Library</b> A library for designing Mobile Applications easily and fast	2009-2013
<b>Designing BehNevis Java Mobile Library</b> A library for using Persian in Mobile Applications	2009-2013
<b>Designing and Development of More than 30 Windows and Mobile Applications</b> VB, C#, MATLAB, J2EE, J2ME, Android, iOS	2005-2016

## Technical Skills

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### **Desktop Programming Languages**

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Expert in C/C++, VB, VB.Net, C#.Net, Java Standard, MATLAB, and familiar with Assembly (8086), Python, Lisp, ML, F#

### **Multi-core Programming**

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Familiar with CUDA, MPI, MPJ, MATLAB HPC plugins

### **Mobile Programming Languages**

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Expert in Java Mobile (J2ME), Android and iOS

### **Operating Systems**

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Expert in Windows (9x, XP, Vista, 7, 8, 10) and familiar with Linux (Ubuntu, Fedora)

### **Databases**

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Expert in SQL Server, Access and familiar with Oracle

## Publications

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### Books

1	<b>An Introduction to Programming Contests (In Persian)</b> Co-author with Ahmad Yoosofan, Faezeh Mirzaei and Amin Babadi Publisher: Kashan, Shasusa	2016
2	<b>ActiveX Design Learning (In Persian)</b> Co-author with Ahmad Yoosofan Publisher: Kashan, Ahmad Yoosofan	2010

### Journal Papers

1	<b>A Novel Cascading Scheme to Improve Speed and Accuracy of a VMMR System</b> <i>Mohsen Biglari</i> , Ali Soleimani , Hamid Hassanpour IJECE: Iranian Journal of Electrical and Computer Engineering	2017
2	<b>A Cascading Scheme for Speeding up Multiple Classifier Systems</b> <i>Mohsen Biglari</i> , Ali Soleimani, Hamid Hassanpour Pattern Analysis and Applications	2017
3	<b>A Cascaded Part-based System for Fine-grained Vehicle Classification</b> <i>Mohsen Biglari</i> , Ali Soleimani, Hamid Hassanpour IEEE Transactions on Intelligent Transportation Systems	2017
4	<b>Using Discriminative Parts for Vehicle Make and Model Recognition</b> <i>Mohsen Biglari</i> , Ali Soleimani, Hamid Hassanpour JSDP: Journal of Signal and Data Processing	2017
5	<b>Part-Based Recognition of Vehicle Make and Model</b> <i>Mohsen Biglari</i> , Ali Soleimani, Hamid Hassanpour IET Image Processing	2017
6	<b>A Comparison between Holistic and Part-Based Approaches and Proposing a New Approach for Vehicle Make and Model Recognition (In Persian)</b> <i>Mohsen Biglari</i> , Ali Soleimani SCJ: Soft Computing Journal	2017

7	<b>Fine-grained Vehicle Classification using Similar Auto Extracted Parts (In Persian)</b> <i>Mohsen Biglari, Ali Soleimani, Hamid Hassanpour</i> MVIP: Machine Vision and Image Processing	2017
8	<b>A Secure Algorithm for Solving Fingerprint Classification Problems (In Persian)</b> <i>Faezeh Mirzaei, Hossein Ebrahimpour-Komleh, Mohsen Biglari</i> IJECE: Iranian Journal of Electrical and Computer Engineering	2015
9	<b>Designing an Online Face Recognition System using Graphics Processor (In Persian)</b> <i>Mohsen Biglari, Faezeh Mirzaei, Hossein Ebrahimpour-Komleh</i> JCSE: The CSI Journal on Computer Science and Engineering	2014
10	<b>Persian/Arabic Handwritten Digit Recognition Using Local Binary Pattern</b> <i>Mohsen Biglari, Faezeh Mirzaei, Jalil Ghavidel Neycharan</i> IJDIWC: International Journal of Digital Information and Wireless Communications	2014
11	<b>Illumination Invariant Face Recognition using SQI and Weighted LBP Histogram</b> <i>Mohsen Biglari, Faezeh Mirzaei, Hossein Ebrahimpour-Komleh</i> MJEE: Majlesi Journal of Electrical Engineering	2013
12	<b>A Novel Method for Robust Fingerprint Matching, Using Graphics Processors, By CUDA (In Persian)</b> <i>Faezeh Mirzaei, Mohsen Biglari, Hossein Ebrahimpour-Komleh</i> JSCIT: Journal of Soft Computing and Information Technology	2013
13	<b>A Novel Rule-based Fingerprint Classification Approach</b> <i>Faezeh Mirzaei, Mohsen Biglari, Hossein Ebrahimpour-Komleh</i> IJDIWC: International Journal of Digital Information and Wireless Communications	2013

*Conference Papers*

1	<b>Vehicle Make and Model Recognition using Auto Extracted Parts</b> <i>Mohsen Biglari, Ali Soleimani, Hamid Hassanpour</i>   2017 ITSCongress2017: The 2nd International ITS Congress, Tehran, Iran
2	<b>Vehicle Make and Model Recognition using a Combination of Part-based Models (In Persian)</b> <i>Mohsen Biglari, Ali Soleimani, Hamid Hassanpour</i>   2016 ICSPIS2016: The 2nd International Conference on Signal Processing and Intelligent Systems, Tehran, Iran
3	<b>Persian Handwritten Digit Recognition Using LBP Operator (In Persian)</b> <i>Faezeh Mirzaei, Mohsen Biglari, Jalil Ghavidel Neycharan, Seyed Ali Soleimani</i>   2014 IKT2014: The 6 <sup>th</sup> Conference on Information and Knowledge Technology, Shahrood, Iran
4	<b>Robust Feature Extraction Using Gabor Filter, LBP and LDA for Face Recognition (In Persian)</b> <i>Mohsen Biglari, Jalil Ghavidel Neycharan, Faezeh Mirzaei, Seyed Ali Soleimani</i>   2014 IKT2014: The 6 <sup>th</sup> Conference on Information and Knowledge Technology, Shahrood, Iran
5	<b>BehNama, a Library for Designing Mobile User Interface (In Persian)</b> <i>Mohsen Biglari, Seyed Ali Soleimani</i>   2014 IKT2014: The 6 <sup>th</sup> Conference on Information and Knowledge Technology, Shahrood, Iran
6	<b>Designing a Fast and Invariant to Illumination Face Recognition System using Graphics Processors (In Persian)</b> <i>Mohsen Biglari, Faezeh Mirzaei, Seyed Ali Soleimani</i>   2013 IKT2013: The 5 <sup>th</sup> Conference on Information and Knowledge Technology, Shiraz, Iran
7	<b>A Fast, Accurate and Comprehensive Algorithm for Writing Persian in Mobile Applications (In Persian)</b> <i>Mohsen Biglari, Seyed Ali Soleimani</i>   2013 IKT2013: The 5 <sup>th</sup> Conference on Information and Knowledge Technology, Shiraz, Iran
8	<b>A Minutiae-Based Method for Accurate and Fast Fingerprint Matching with Parallel Algorithms using CUDA (In Persian)</b> <i>Faezeh Mirzaei, Mohsen Biglari, Hossein Ebrahimpour-Komleh</i>   2013 IKT2013: The 5 <sup>th</sup> Conference on Information and Knowledge Technology, Shiraz, Iran



9	<p><b>A Novel and Robust Algorithm to Rotation and Translation for Fingerprint Matching (In Persian)</b>  Faezeh Mirzaei, <i>Mohsen Biglari</i>, Hossein Ebrahimpour-Komleh  ICIS2013: The 11<sup>th</sup> Iranian Conference on Intelligent Systems, Tehran, Iran</p>	2013
10	<p><b>Secure and Fast Classification of Fingerprints based on Probabilistic Ranking (In Persian)</b>  Faezeh Mirzaei, <i>Mohsen Biglari</i>, Hossein Ebrahimpour-Komleh  ICIS2013: The 11<sup>th</sup> Iranian Conference on Intelligent Systems, Tehran, Iran</p>	2013
11	<p><b>A Novel and Fast Face Detection System Using an Extended Set of Rectangular Features (In Persian)</b>  <i>Mohsen Biglari</i>, Faezeh Mirzaei, Hossein Ebrahimpour-Komleh  PRIA2013: The 1<sup>st</sup> Iranian Conference on Pattern Recognition and Image Analysis, Birjand, Iran</p>	2013
12	<p><b>Design, Implementation and Evaluation of a Structure for Secure Message Passing in a Cluster Environment (In Persian)</b>  <i>Mohsen Biglari</i>, Faezeh Mirzaei, Seyed Morteza Babamir  IKT2012: The 4<sup>th</sup> Conference on Information and Knowledge Technology, Babol, Iran</p>	2012
13	<p><b>A Fast and Robust Face Recognition Approach Using Weighted Haar and Weighted LBP Histogram</b>  <i>Mohsen Biglari</i>, Faezeh Mirzaei, Hossein Ebrahimpour-Komleh  CICIS2012: The 3<sup>rd</sup> International Conference on Contemporary Issues in Computer and Information Sciences, Zanjan, Iran</p>	2012
14	<p><b>Impact of Enhancement Methods on a New Fingerprint Singular Points Detection System (In Persian)</b>  Faezeh Mirzaei, <i>Mohsen Biglari</i>, Hossein Ebrahimpour-Komleh  CSEIT2012: The 1<sup>st</sup> National Conference on Computer Science and Engineering and Information Technology, Shiraz, Iran</p>	2012
15	<p><b>First and Second Singular Points Detection In Noisy Images for Designing a Fingerprint Classification System (In Persian)</b>  Faezeh Mirzaei, <i>Mohsen Biglari</i>, Hossein Ebrahimpour-Komleh  NCNIEE2012: The 1<sup>st</sup> Conference on Novel Advances in Electrical Engineering, Esfahan, Iran</p>	2012

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<b>16</b>	<b>Design and Implementation of a Persian to English Translator System (In Persian)</b> Faezeh Mirzaei, <i>Mohsen Biglari</i> , Ahmad Yoosofan, Emad Bayat   2012 ICPLP2012: The 1 <sup>st</sup> International Conference on Persian Language Processing, Semnan, Iran
<b>17</b>	<b>Web-Based Virtual Class Implementation using Flash Media Server (In Persian)</b> Ahmad Yoosofan, Mojtaba Anaami, <i>Mohsen Biglari</i>   2010 CSICC2010: The 15 <sup>th</sup> Annual CSI Conference, Tehran, Iran
<b>18</b>	<b>Automatic Conversation of DehKhoda Dictionary's Words to IPA Template (In Persian)</b> Ahmad Yoosofan, Khadije Jafari, <i>Mohsen Biglari</i>   2010 NEEC2010: The 2 <sup>nd</sup> National Electrical Engineering Conference, Esfahan, Iran

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## References

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**Dr. Ali Soleimani**

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**Email:** solimani\_ali@shahroodut.ac.ir**Dr. Hamid Hassanpour**

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Computer and Information Technology Department, Shahrood University	Full Professor
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**Email:** h.hassanpour@shahroodut.ac.ir**Dr. Hossein Ebrahimpour-Komleh**

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Computer Engineering Department, University of Kashan	Assistant Professor
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**Email:** ebrahimpour@kashanu.ac.ir**Dr. Seyyed Morteza Babamir**

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Computer Engineering Department, University of Kashan	Associate Professor
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**Email:** babmir@kashanu.ac.ir**Ahmad Yoosofan**

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Computer Engineering Department, University of Kashan	Instructor
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