

Roohollah(Reza) ASLANZADEH

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OBJECTIVE

To get admission from the Laurentian University

EDUCATION

- 2007 - 2010 M.Sc. in ARTIFICIAL INTELLIGENCE, [Amirkabir University of Technology \(AUT\)](#)
Thesis: "A New Efficient Image Segmentation based on Evolutionary Computation"
Advisor: [Prof. Mohammad RAHMATI](#)
- 2002 - 2007 B.Sc. in COMPUTER SOFTWARE ENGINEERING, [Amirkabir University of Technology \(AUT\)](#)
Thesis: "Episodic Associative Memory Model with Neighborhood Effect and its Usage for Classification"
- 2004 - 2008 Diploma in MATHEMATICS AND PHYSICS DISCIPLINE, [Energy High School](#), Tehran

ACADEMIC EXPERIENCE

- | | |
|------------------------|---|
| <i>Current</i>
2017 | Research Assistant at CVLAB, Amirkabir University
Research on Multi Camera Multi Target Tracking.
Under Supervision of Prof. R. Safabakhsh |
| <i>Current</i>
2017 | Senior Teaching Assistant at Amirkabir University, Tehran
<i>Neural Network Course</i>
Prof. R. Safabakhsh |
| 2011
SPRING | Supervisor of Image Processing Lab, University of Science and Culture
Research on content-based image retrieval |
| 2010
2008 | Research Assistant at PATTERN RECOGNITION & IMAGE PROCESSING LAB, Amirkabir University
Research on Image Segmentation Using Evolutionary Computation.
Under Supervision of Prof. M. Rahmati |
| 2008
2007 | Research Assistant at AD-HOC AND WIRELESS NETWORKS LAB, Amirkabir University
Research on Coverage in Wireless Sensor Networks.
Under Supervision of Prof. M. Dehghan
Resulted in a Conference Paper in WinsYS'08 |
| 2007
2006 | Research Assistant at AMIRKABIR UNIVERSITY
B.S. Thesis on Episodic Associative Memory.
Under Supervision of Mr. S. M. Hosseinienejad |
| 2006
2005 | Research Assistant at SOFTWARE SYSTEM R&D LAB, Amirkabir University
Development of Evaluation Process Management System based on Common Criteria (CC) Global Standard.
Under Supervision of Prof. M. Razzazi
The project was ordered and sponsored by Iran Telecommunication Research Center |

WORK EXPERIENCE

Current 2017	Product Manager at Samim Rayaneh Co. Leading ITS team and Managing all its products.
2017 2011	Senior Designer and Developer at Samim Rayaneh Co. Design and Developing License Plate Recognition (LPR) and Speedometer System. In this project we use image-processing and machine learning techniques to identify vehicles by their license plates and also estimate their velocities in highways. The main parts of this project is to grab frames, detect candidate licenses in frame, segment characters of plate and finally Recognize characters and plate numbers. The elements which we used in this projects are 1)An embedded smart camera 2)Infra-red illuminators 3)Customized Linux operating system 4)Real time LPR software 5)Web-application program as interface of our embedded camera. 6)A sever side Web application that connect to all our cameras network. 7)Database to record/fetch data.
2016 2014	Software Developer at Research center of AmirKabir University Design and Developing Software which estimate angular velocity of one plane based on grabbed images of that plane in different position.
2011 Spring	Tutor at University of Science and Culture Teaching Artificial Intelligence.
2005 Summer	Software Engineer & ASP.Net Programmer at Chista Software Group Design and Implementation of a prototype and RFP for Building Industry Information Center. (Rational Rose, Visio, ASP.NET)
2004 Fall	Designer of Project Plan at IIE Company Design project plan for some parts of company.

TECHNICAL SKILLS

PROGRAMMING	Languages: C, C++, MATLAB, C#, PYTHON, JAVA HTML, CSS, PHP, ASP.NET, VHDL, LINUX SHELL SCRIPT, \LaTeX Libraries: OPENCV, TENSORFLOW, KERAS, PILLOW, SCIKIT-LEARN PANDAS, MATPLOTLIB, NUMPY, SCIPY, .NET FRAMEWORK Embedded: KERNEL PROGRAMMING, YOCTO, BUILDROOT USING EMBEDDED BOARDS BASE ON INTEL ATOM AND ARM USING IO (GPIO, I2C, SPEED RADAR SENSOR, RFID ANTENNA, ...) USING INDUSTRIAL CAMERAS IN COMPUTER VISION APPLICATIONS DESIGNING SOFTWARE TO WORK REAL TIME ON A BOARD
	Platforms: LINUX, WINDOWS IDEs, Editors: PYCHARM, NETBEANS, MICROSOFT VISUAL STUDIO Tools: GIT, SVN, JUPYTER NOTEBOOK, WEKA, MATLAB IMAGE PROCESSING TOOLBOX DataBase: MYSQL, MICROSOFT SQL SERVER Development: AGILE SOFTWARE METHODOLOGIES, SCRUM UML AND RUP WITH RATIONAL ROSE SUITE, RATIONAL XDE REQUIREMENT ENGINEERING IN SOFTWARE DEVELOPMENT

NOTABLE ACADEMIC PROJECTS

FALL 2009	Design, Implementation and analyze a method for numerical constant optimization in genetic programming, Evolutionary Computation Course, Amirkabir Univ. of Tech.
FALL 2009	Implementation and analyze Text Independent Speaker Recognition system using graph matching, Digital Speech Processing Course, Amirkabir Univ. of Tech.
FALL 2004	Design and Implementation of Database for Pishrah Company using MySQL, Database Design Course, Amirkabir Univ. of Tech.
SPRING 2004	Design and Implementation of an information retrieval system, Information Retrieval Course, Amirkabir Univ. of Tech.
SPRING 2003	Design and Implementation of a Multiplayer Game (Age of Empires Prototype) using C++ and Socket Programming, Advanced Programming Course, Amirkabir Univ. of Tech.

PUBLICATIONS

- 2017 “AN EFFICIENT EVOLUTIONARY BASED METHOD FOR IMAGE SEGMENTATION.”, **R. Aslanzadeh**, K. Qazanfari, and M. Rahmati, *arXiv:1709.04393*, 2017.
- 2008 “DYKCO, DYNAMIC K-COVERAGE IN WIRELESS SENSOR NETWORKS.”, A. Yahyavi, L. Roostapour, **R. Aslanzadeh**, N. Yazdani, *In Proceedings of 2008 IEEE 3 International Conference on Systems, Man, and Cybernetics*, Suntec, Singapore, 2008, p2804-2809.
- 2008 “INTRUSION K-COVERAGE IN WIRELESS SENSOR NETWORKS.”, A. Yahyavi, L. Roostapour, **R. Aslanzadeh**, M. Dehghan, N. Yazdani, *In Proceedings of WinSYS2008 International Conference on Wireless Information Networks and Systems*, Porto, Portugal, 2008, p41-46.

AWARDS AND HONORS

- 2017 Admitted as PhD student in Amirkabir University of Technology in the university entrance examination
- 2015 Admitted as PhD student in Shahrood University of Technology in the university entrance examination
- 2007 Ranked 87th in the university entrance examination among around 4,000 students.
- 2002 Ranked 537th in the university entrance examination among around 400,000 students.

MEMBERSHIPS AND ACTIVITIES

- 2017 - *Curr.* IRANIAN SOCIETY OF MACHINE VISION AND IMAGE PROCESSING(**ISMVIP**)
- 2017 - *Curr.* **Computer Vision Lab**, Amirkabir University of Technology
- 2007 - *Curr.* ALUMNI ASSOCIATION OF AMIRKABIR UNIVERSITY OF TECHNOLOGY
- 2003 Member of Persia Team, the 2004 ACM-ICPC World Regional Contest, Amirkabir University of Technology, Tehran, Iran.

RESEARCH INTERESTS

Artificial intelligence, Computer Vision and Image Processing, Machine Learning, Data Science, Artificial Neural Networks, Deep Learning, Human Computer Interaction.

LANGUAGES

PERSIAN: Native
TURKISH: Elementary

ENGLISH: Proficient
ARABIC: Elementary

REFERENCES

Available upon request.