



Resume of **Kourosh Meshgi**

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● **Objective:**

- Brining my understanding of Human Brain Visual System, Machine Vision Techniques, and Computer-Brain Interfaces to the edge-of-knowledge so I can bring this edge further, invent new devices to help humanity and make automated systems and robots “smarter”.

● **Education:**

- *10/2011 – Present:* **Ph.D. in Informatics**, Department of Systems Science, Graduate School of Informatics, Kyoto University, Kyoto, Japan
  - Ph.D. Dissertation: “3D Face reconstruction from Multiple Low Resolution Videos of a Single Scene”, under supervision of Dr. S. Ishii, Dr. S. Maeda, ad Dr. S. Oba
  - Interests: Sequential Data Analysis, Computer Vision(Super Resolution, 3D Reconstruction)
- *09/2008 – 10/2010:* **M.Sc. in Artificial Intelligence** with overall GPA 17.93/20 (89%), Department of Computer Engineering, Amirkabir University of Technology, Tehran, Iran
  - M.Sc. Thesis: "Brain Inspired Face Detection", developing a Visual Cortex Top-Down Model to Reduce Non-stationary Covariance Dependency in Natural Input Images such as Human Faces and Cluster Objects based on their Image Distribution, under supervision of Dr. S. Shiry
- *09/2002 – 07/2008:* **B.Sc. in Computer Engineering** with overall GPA 15.26/20 (76%), Department of Computer Engineering, Amirkabir University of Technology, Tehran, Iran
  - B.Sc. Project: "Random Early Congestion Detection of Packet Switched Networks Using Fuzzy Q-Learning", Adapting Routers to General Usage of Network by Adjusting Parameters of RED Algorithm with Fuzzy Q-Learning Simulated by OPNet, under supervision of Dr. S. Shiry
- *09/1998 - 06/2002:* **Diploma in Mathematics** with overall GPA 19.44/20 (97%), Sadr High School, Tehran ,Iran

● **Publications:**

- S. Ebrahimi, **K. Meshgi**, S. Khadivi, S.E. Shiri Ahmad Abady, "*Meta-level Statistical Machine Translation*," in Proc. of 6<sup>th</sup> Int'l Joint Conf. on NLP(IJCNLP'13), Nagoya, Japan, 2013
- **K. Meshgi**, Y. Li, S. Oba, S. Maeda, S. Ishii, "*Enhancing Probabilistic Appearance-Based Object Tracking with Depth Information: Object Tracking under Occlusion*," in IEICE Tech. Rep., vol. 113, no. 197, IBISML2013-22, pp. 85-91, *Sept. 2013*.
- S. MasoumZadeh, **K. Meshgi**, S. Shiry, G. Taghizadeh, "*FQL-RED: An Adaptive Scalable Schema for Active Queue Management*," Int'l. J. of Network Mgmt (IJNM), vol. 21, pp.157-167 Wiley, *2011*.
- S. MasoumZadeh, G. Taghizadeh, **K. Meshgi**, S. Shiry, "*Deep Blue: A Fuzzy Q-Learning Enhanced Active Queue Management Scheme*," Proc. of Int'l. Conf. on Adaptive and Intelligent Systems (ICAIS'09), Klagenfurt, Austria, *2009*.
- S. Soleimanpour, S. Shiry, **K. Meshgi**, "*Sensor Fusion in Robot Localization using DS-Evidence Theory with Conflict Detection using Mahalanobis Distance*," Proc. of 7th IEEE Int'l. Conf. on Cybernetic Intelligent Systems (CIS2008), United Kingdom, *2008*.
- S. MasoumZadeh, **K. Meshgi**, S. Shiry, "*Adaptive Mutation in Evolution Strategy using Fuzzy Q-Learning*," Proc. of 13<sup>th</sup> Iran Computer Association Conf. (ICCSC2008), Kish, Iran, *2008*.

● **Work Experience:**

- *1/2012 – Present:* Research Assistant, Integrated System Biology Lab, Kyoto University
  - Project 1: Frontal Face Reconstruction, Denso

- Project 2: Super Resolution, Kyoto University
- 7/2011 – 10/2011: Project Management Consultant, Shahrpardaz Co., Tehran, Iran
  - Project: Member of Tehran Bus e-Ticket Vending Automation Project Team(Project Management Team)
  - Integrating Several Management Standards and Methodologies to Realize Progressive Improvement in Organization, such as ISO9001, ITIL v3.0, PMBOK 2008, ISO14000 &18000 and 5S
- 8/2010 – 7/2011: R&D Department Manager, Shahrpardaz Co., Tehran, Iran
  - Project: Member of Tehran Subway Ticket Vending Automation Project Team, Project Management Inspector/Internal Audit, Defect Analysis Engineer(Service Layer Management Team)
  - Systematic Software Testing (Hardware, Software and Business Process)
  - Banknote Feature Analysis, Developing Blueprint of a Banknote Validator Device, Trained to Repair and Calibrate 3<sup>rd</sup> Party (Armatic Co.) Bank Note Acceptor Devices, Through Study over Iranian Banknotes
  - Initial Idea, Proposing and Quality Control of Kiosk Systems (Ticket Vending, Banking, Information, Self Service Kiosks), Product Maintenance Procedure Analysis
  - Study and Comparison, Preparation and Fault Detection of Kiosk Mounted Devices
  - Technical Party of Negotiation Team in International Meetings
- 10/2010 – 3/2011: Software Developer, Behpooyesh Co., Tehran, Iran
  - Projects: Member of Tehran Traffic Control Surveillance System Automation Project(Service Level Management Team) , Member of Behnama Surveillance System Development(Development Team)
  - Video Surveillance Systems, Video Understanding & Event Detection, IP Cameras
- 10/2007 – 10/2010: Research Assistant, Robotics Research Lab, Department of Computer Engineering, Amirkabir University of Technology, Tehran, Iran
  - Brain Derived Vision (Top-Down Cortical Models, Natural Image Understanding)
  - Reinforcement Learning Applications (Computer Networks, Robotic Soccer)
- 2/2010 – 8/2010: Teacher Assistant, Amirkabir University of Technology
  - Introduction To Artificial Intelligence (M.Sc. Course), By Dr. Khadivi
- 5/2009 – 3/2010: Software Testing R&D, QA Team, IT Orbit Co. ,Tehran, Iran
  - Project: Member of Unified University System(NAD Product) Project (Software Testing Team)
  - Software Development Quality Control Procedure, Test Process Management, ISTQB Foundation Level Training, Software Risk Analysis, Developing Software Test Documentation & Plan (IEEE Std. 829), Familiar with STEP Methodology, Focus on Functional Testing Techniques and Familiar with Test Tools HP Quality Center (QC) and HP Quick Test Professional (QTP)
- 10/2009 – 2/2010: Teacher Assistant, Amirkabir University of Technology
  - Robotics (M.Sc. Course), By Dr. Shiry
- 10/2007 – 2/2010: Teacher Assistant, Amirkabir University of Technology
  - Introduction To Artificial Intelligence(B.Sc. Course),By Dr. Ebadzadeh,5 Consecutive Semesters
- 10/2004 – 3/2008: Researcher, Robotics Research Center, Department of Computer Engineering, Amirkabir University of Technology, Tehran, Iran
  - ZMP Critic for Learning Walk Pattern of a Biped Humanoid
  - Hierarchical Architecture For Soccer Playing Humanoids in 3D World
  - Fuzzy Knowledge-Base to Inference with Propositional Logic
- 07/2006 - 04/2007: Telecommunication Switches R&D, Mediation Team, Data Processing Co., Tehran, Iran
  - Project: Member of Nationwide Telecom. Centers Billing System(Software/Hardware Mediation Team)
  - Developing Distributed Data Acquisition Agents for Telecommunication Switches
- Misc:
  - Applying Modern AI Search Algorithms in Domains such as Industrial Supply-Chain Management, Wireless Sensor Networks, and Games
  - Teachings such as Image Processing Basics, Introductory to Robotics(for children), Theory of Languages and Automata, Artificial Intelligence, Neural Networks, Evolutionary Algorithms and Programming in Matlab

## ● **Qualifications:**

- *Abilities:* Machine Learning, Computer Vision, Software Testing, Software Development, Project Management, Quick Learner
- *Testing:* ISTQB Foundation Level Training(2009), HP QC(Proficient) HP QTP(Proficient)
- *Management:* ITIL v3.0 Foundation Level Certified(EXIN/APM 2011), PMBOK 2008 Training & Workshop (2011), ISO 9001, 14001 & 18001 Training (2011), ISO 19011:2002 & 13485:2003 Certified Internal Audit (BRS 2011, Cert. #QM/IS-BR/134-349), Psychology Transactional Analysis Training (2007-2009)
- *Programming:* C++(Proficient), Matlab(Proficient), C#.NET(Proficient), C(Intermediate), VB(Familiar), Python (Familiar)
- *Toolboxes:* Matlab NN, GA, & IPT Toolboxes(Proficient), Weka(Familiar), OpenCV(Familiar), OpenGL(Familiar)
- *Misc:* Bash Programming(Familiar), DB(SQL), MS Project(Familiar)

## ● **Honors:**

- Received Japan Government Monbokagakusho(MEXT) **Scholarship** from the Ministry of Education, Culture, Sports, Science and Technology, Government of Japan, *2011-2014*.
- Achieved **3<sup>rd</sup> Place** of Int'l. RoboCup 2005 Competitions, Soccer Coach Simulation League, Member of Kasra Team, Osaka, Japan, *2005*.
- Recognized as an **Exceptional Talent** during Master's Program by Amirkabir University of Technology, *2010* (Ranked **1<sup>st</sup>** in *Fall 2008* & **2<sup>nd</sup>** in *Spring 2008* semesters in Artificial Intelligence Dept.)
- **Ranked 91<sup>st</sup>** of Nationwide Graduate Program Entrance Examination in AI, Iran, *2008*.
- **Ranked 604<sup>th</sup>** of Nationwide Undergraduate Program Entrance Examination, Iran, *2002*.
- Qualified to Attend in **Final** Level of 10<sup>th</sup> Iran National Mathematics Olympiad, Tehran, Iran, *1999*.
- Ranked **1<sup>st</sup>** in Training Courses among other Students (ITIL v3.0 Foundation, ISTQB Foundation, PMBOK 2008, Transactional Analysis, ISO 9001)
- **Qualified** for Final Round of RoboCup 2010 Competitions, 2D Soccer Simulation League, As a Member of Nemesis Team, Suntec, Singapore, *2010*.
- **Qualified** for Final Round of RoboCup 2007 Competitions, 3D Humanoid Simulation League, As a Member of Aria Team, Atlanta, USA, *2007*.

## ● **Affiliations:**

- IEEE Member, *2009-Present* (Robotics and Automation Society, *2010-Present*)
- RoboCup Soccer Simulation Teams (“Kasra” Coach *2005*, “Aria” 3D *2006-2008*, “Nemesis” 2D *2010*);
- Organizing Committee of 14<sup>th</sup> Conf. of Intl. Computer Society of Iran Computer Conference, CSICC'09, Tehran, Iran, *2009*;
- Swimming Team of Amirkabir University, *2005-2006*;
- Organizing Committee of 1<sup>st</sup> and 2<sup>nd</sup> Conf. of Information & Knowledge Technology, IKT 2003 & IKT 2005, Tehran, Iran, *2003-2005*.

## ● **Extracurricular:**

- Obtained Life Savior Certificate (2<sup>nd</sup> Degree), *2003*
- Fluent in English (GRE 2007: Q760 – V400)(TOEFL iBT 2010: 99 – R:23,L:26,S:23,W:27)
- Learning Japanese

## ● **References:**

- Dr. Shin Ishii, Professor @ Kyoto University
- Dr. Shingeyuki Oba, Senior Lecturer @ Kyoto University
- Dr. Shin-ichi Maeda, Assistant Professor @ Kyoto University
- Dr. Saeed Shiry Ghidary, Assistant Professor @ Amirkabir University of Technology
- Dr. Mohammad Rahmati, Assistant Professor @ Amirkabir University of Technology
- Dr. Mohammad Mehdi Ebadzadeh, Assistant Professor @ Amirkabir University of Technology

- Dr. Shahram Khadivi, Assistant Professor @ Amirkabir University of Technology
  - Dr. Reza Safabakhsh, Professor @ Amirkabir University of Technology
  - Dr. Hossein Pedram, Dean of Computer Engineering Faculty @ Amirkabir University of Technology
- Email addresses will be provided upon request.*