

Mohammadreza Zolfaghari

Curriculum Vitae

No 803, Department of Computer Engineering,
Sharif University of Technology, Tehran, Iran

☎ (+98) 935 9461949

☎ (+98) 25 38866804

✉ mzolfaghari@ce.sharif.edu

🌐 ce.sharif.edu/~mzolfaghari

Research Interests

Statistical Machine Learning/Pattern Recognition.

- Sparse Representation and Dictionary Learning
- Distance Metric Learning
- Graph Based Methods and Manifold Regularization
- Semi-supervised Learning
- Recommender Systems

Computer Vision.

- Human Pose Estimation and Activity Recognition
- Object Recognition
- Face Detection and Recognition

Education

2010–2012 **M.Sc. in Computer Engineering (Artificial Intelligence)**, Sharif University of Technology, Tehran, Iran.

GPA: 18.47/20

- **Thesis Title:**"Human Pose Estimation Using Sparse Representation",
Advisor: Dr. Mohammad Taghi Manzuri Shalmani

Relevant courses:

- Machine Learning: 18.4/20
- Neural Network and Fuzzy Systems: 20/20
- Statistical Pattern Recognition: 19.2/20
- Digital Signal Processing: 19.2/20

2005–2010 **B.Sc. in Computer Engineering (Hardware Engineering)**, Iran University of Science and Technology, Tehran, Iran.

GPA: 15.32/20

- **Thesis Title:**"Bandwidth Allocation in Cognitive Radio Network",
Advisor: Dr. Reza Berangi

2001–2005 **Diploma in Mathematics and Physics**, Izadi Highschool, Qom, Iran, GPA : 18.95/20.

Publications

Book Chapters

- o **M. Zolfaghari**, Z. Amiri, "**Artificial Intelligence**", ModaresanSharif Publication, Tehran, Iran. A book in Persian language containing multiple-choice problems for preparing students to participate in the Nationwide M.Sc. entrance exam in Computer Engineering-Artificial Intelligence.

Journal Papers

- o **M. Zolfaghari**, A. Jourabloo, S. Ghareh Gozlou, B. Pedrood, M.T. Manzuri-Shalmani, "**3D Human Pose Estimation from Image using Couple Sparse Coding**", Journal of Machine Vision and Applications 2014. [[Link](#)]

Conference Papers

- o **M. Zolfaghari**, M. Ghareh Gozlou, M.T. Manzuri, "**Multiple Metric Learning for Graph Based Human Pose Estimation**", 20th International Conference on Neural Information Processing (ICONIP) 2013. (**Oral Presentation**)[[Link](#)]
- o B. Babagholami-Mohamadabadi, A. Jourabloo, **M. Zolfaghari**, M.T. Manzuri-Shalmani, "**Bayesian Supervised Dictionary Learning**", Big Data meet Complex Models Workshop ,Uncertainty in Artificial Intelligence (UAI) 2013. [[Link](#)]
- o B. Babagholami-Mohamadabadi, A. Zarghami, **M. Zolfaghari**, M. S. Baghshah, "**PSSDL: Probabilistic Semi Supervised Dictionary Learning**", 23th European Conference on Machine Learning (ECML PKDD) 2013. [[Link](#)]
- o N. Pourdanghani, H. R. Rabiee, **M. Zolfaghari**, "**Metric Learning for Graph Based Semi- Supervised Human Pose Estimation**", 21st International Conference on Pattern Recognition (ICPR) 2012. [[Link](#)]

Technical Reports

- o **M. Zolfaghari**, "**Graph Based Semi-supervised Learning Methods**", DML Lab, Sharif University of Technology, Tehran, Iran 2010. (in Persian)
- o **M. Zolfaghari**, "**A Survey of Persian Text Summarization Techniques**", CRCIS Research Center, Qom, Iran 2010. (in Persian)

Awards and Honors

- 2010 **5th Rank**, *Nationwide M.Sc. entrance exam in Computer Engineering-Artificial Intelligence*, with more than 20,000 participants, Iran.
- 2010 **3rd Rank**, *Nationwide M.Sc. entrance exam in Computer Engineering-Hardware Engineering*, with more than 20,000 participants, Iran.
- 2010 **33th Rank**, *Nationwide M.Sc. entrance exam in Computer Engineering-Software Engineering*, with more than 20,000 participants, Iran.
- 2010 **Outstanding**, *Awarded as Outstanding Student at the Iran University of Science and Technology* , Tehran, Iran.
- 2010 **8th Rank**, *15th National Collegiate Scientific Olympiad in Computer Engineering*, Iran.
- 2005 **Top 0.1%**, *National entrance exam of Iranian Universities, among more than 500,000 participants*, Iran.

2003 **3rd Rank**, *the National Physics Laboratory Competition*, Tehran, Iran.

Teaching Experience

- Fall 2013 **Lecturer**, *Introduction to Automata Theory & Languages* at CE department, Azad University, Parand [\[Link\]](#).
- Fall 2013 **Lecturer**, *System Programming* at CE department, Shahab Danesh University, Qom [\[Link\]](#).
- Spring 2012 **Teaching Assistant**, *Statistical Pattern Recognition* at CE department, Sharif University of Technology, Tehran [\[Link\]](#), Under supervision of Dr. **Dr. H. R. Rabiee**.
- Spring 2012 **Teaching Assistant**, *Neural Networks and Fuzzy Systems* at CE department, Sharif University of Technology, Tehran [\[Link\]](#), Under supervision of Dr. **M. Jalili**.
- Fall 2012 **Teaching Assistant**, *Digital Signal Processing* at CE department, Sharif University of Technology, Tehran [\[Link\]](#), Under supervision of Dr. **M. T. Manzuri-Shalmani**.
- Spring 2009 **Teaching Assistant**, *Electrical Circuits 1* at CE department, Iran University of Science and Technology, Tehran [\[Link\]](#), Under supervision of Dr. **R. Berangi**.

Experience

Research

- 2010- 2013 **Digital Signal Processing Lab**, *Department of Computer Engineering, Sharif University of Technology*, Tehran, Iran.
[\[DSPL\]](#)
- 2008- 2009 **Wireless Networks and Signal Processing Lab**, *Department of Computer Engineering, Iran University of Science and Technology*, Tehran, Iran.
[\[WINERLAB\]](#)

Vocational

- 2014 **R&D Engineer**, *DarViz*, Tehran, Iran.
Intelligent systems, Please see "Projects" section in my CV
- 2013 **R&D Engineer**, *Niroo Research Institute (NRI)*, Tehran, Iran.
Intelligent System for Electricity Market
- 2010 **R&D Engineer**, *NoorSoft (CRCIS)*, Qom, Iran.
Text Summarization System
- 2007- 2009 **Programmer**, *NADI Tech*, Tehran, Iran.
Software Developer

Projects

- 2010 **Persian Handwritten Digit Recognition using Cascaded Ensemble Learning**, *Academic*, Tehran, Iran.
- 2010 **Persian Text Summarization**, *CRCIS*, Qom, Iran.
- 2010 **Fuzzy Decision Trees based on Fuzzy Rough Set**, *Academic*, Tehran, Iran.
- 2011 **Network Community Detection by Proper Weighting Scheme**, *Academic*, Tehran, Iran.

- 2011 **Fuzzy Logic based Approach to Qualitative Modeling**, *Academic*, Tehran, Iran.
- 2012 **Human Pose Estimation**, *Academic*, Tehran, Iran.
- 2013 **Face Detection based on Skin Color Likelihood**, *DSPL*, Tehran, Iran.
- 2013 **Single Image Face Recognition System**, *DarViz*, Tehran, Iran.
- 2014 **Product Recommendation in Social Networks System**, *DarViz*, Tehran, Iran.
- 2014 **Scene Understanding (we are working on it)**, *DarViz*, Tehran, Iran.

Membership of Academic Societies

- 2011–Present **Iranian Society of Machine Vision.**
- 2008–2010 **Iran University of Science and Technology Scientific Association.**

Presentations

- Fall 2011 **3D Human Pose Estimation**, *Digital Media Lab (DML)*, Department of Computer Engineering, Sharif University of Technology, Tehran, Iran.
- Summer 2012 **3D Human Pose Estimation using Sparse Representation**, *Digital Media Lab (DML)*, Department of Computer Engineering, Sharif University of Technology, Tehran, Iran.
- Spring 2012 **Metric Learning for Graph Based Human Pose Estimation**, *Digital Signal and Image Processing Lab (DSPL)*, Department of Computer Engineering, Sharif University of Technology, Tehran, Iran.
- Spring 2010 **Persian Text Summarization**, *CRCIS*, Qom, Iran.

Computer skills

- Programming Languages C/C++, C#, Java, MATLAB, Win32, PHP, HTML
- Platforms Mac OS, Linux, Microsoft Windows
- Typesetting L^AT_EX, OpenOffice, NeoOffice, MS Office
- Database MySQL
- Tools OpenCV, Weka, Gephi, Eclipse, Verilog

Languages

- Persian **Native**
- English **Fluent, TOEFL IBT 92, 2013**
- Tati **Mothertongue**
- Turkish **Fluent**
- Arabic **Basic** *Basic words and phrases only*

Interests

- Swimming
- Climbing
- Theater
- Cinema

References

- Available upon request.