

# Mahmoud Zeydabadinezhad

## Contact

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## Profile

### Objective

### MEDICAL IMAGE PROCESSING: Research and development

Technical and management professional with over 7 years of professional experience for positions engineering, deploying, developing and supporting medical imaging equipment and systems, including MRI, PACS, digital mammography, digital radiography, and ultrasound.

- Expertise completing technical projects to meet client quality and schedule requirements.
- Superb track record troubleshooting and resolving medical device problems.
- Strong communication and coordination skills across internal and external departments.
- Good knowledge of medical image processing and MATLAB scripting.

## Education

2013-current	<b>Masters in Biomedical Engineering</b> Department of Biomedical Engineering, Wayne State University, Detroit, MI.
2001 to 2004	<b>Master of Science in Electrical Engineering</b> School of Electrical and Computer Engineering, University of Tehran, Tehran, Iran. Emphasis: Bioelectric engineering. Medical digital image analysis. Thesis: "Multi-resolution segmentation of soft brain tissues from T1-weighted MR images".
1997 to 2001	<b>Bachelor in Biomedical Engineering</b> School of Biomedical Engineering, Amir Kabir University, Tehran, Iran. Emphasis: Bioelectric engineering. Thesis: "Design and implementation of an oil bath temperature controller".

## Honors

- 2001** Ranked in the top 0.1% in the national placement exam (Conquer) for M.Sc. in Engineering in Iran.

## Publications

**M. Zeydabadinezhad**, H. Soltanian-zadeh, R.A. Zoroofi, "Brain MR image segmentation by Gaussian mixture modeling," in *Proceedings of IEEE 2<sup>nd</sup> GCC Conference & Exhibition*, pp. 144-148, Nov. 23-25<sup>th</sup>, 2004.

**M. Zeydabadinezhad**, R.A. Zoroofi, H. Soltanian-zadeh, "Multiresolution automatic segmentation of T1-weighted brain MR images," in *Proceedings of IEEE International Symposium on Biomedical Imaging Conference*, pp. 165-168, April 15-18<sup>th</sup>, 2004.

**M. Zeydabadinezhad**, R.A. Zoroofi, H. Soltanian-zadeh, "Comparison of the three Gaussian mixture modeling and spatial encoding methods for segmenting human brain MRI," *WSEAS Trans. On Electronics*, pp. 482-487, Issue 3, Vol. 1, July 2004.

**M. Zeydabadinezhad**, R.A. Zoroofi, H. Soltanian-zadeh, "Automatic segmentation of brain tissues from MR brain images with Wavelet transform and the EM algorithm," *Proceedings of 11th Iranian Conference on Biomedical Engineering (ICBME2004)*, pp. 401-406, February 17-18th, 2004.

**M. Zeydabadinezhad**, R.A. Zoroofi, H. Soltanian-zadeh, "Improving the automatic PC based segmentation of MR brain images with the Wavelet transform and EM algorithm," *Proceedings of 9th annual computer society of Iran computer conference*, pp. 94-101, February 17-19th, 2004.

**M. Zeydabadinezhad**, R.A. Zoroofi, H. Soltanian-zadeh, "Multiresolution segmentation of MR brain images," *Proceedings of 5th Conference on Intelligent Systems, College of Engineering, Ferdowsi University of Mashhad, Mashhad, Iran, October 14-16th, 2003.*

## Work Experience

<b>Wayne State University</b>	<b>Part-time job</b>
<b>Graduate Research Assistant</b>	<b>Sep. 2013, Current</b>
<p>Assisting with data acquisition and analysis. Scanning human subjects on 3T MRI. Interviewed and prepared human subjects for MRI, ran MRI scan, collected data for analysis.</p> <p>Assessing the experimental effect of blast injury in an animal model. Pre-blast and post-blast data acquisition to assess subcortical bleeding. Data analysis done using SWIM.</p> <p>Used Freesurfer and FSL to analyze DTI data in human concussion model; Developed and modified MATLAB scripts for chemical shift image analysis.</p>	
<b>Abzar Teb Asman Co., Tehran, Iran</b>	<b>Full-time job</b>
<b>Technical Director</b>	<b>Sep. 2010, Sep. 2013</b>
<p>Train and lead 8 employees for top-5 Iranian medical imaging company servicing equipment such as MRI, DDR, FFDM, and US for hospitals and physicians. Resolve client issues to meet strict time requirements through technical analysis, troubleshooting, and problem solving. Allocate resources for optimum productivity and accuracy. Facilitate internal and external interaction with clients and colleagues.</p> <p><i>Highlights &amp; Accomplishments:</i></p> <ul style="list-style-type: none"> <li>• Instrumental role turning around regard for company in marketplace through quality of support and complaint resolution.</li> <li>• Achieved over 95% timely correction of problems by enhancing collaboration with technical departments of client organizations.</li> <li>• Successfully evaluated equipment despite minimal existing documentation.</li> </ul>	
<b>Medal Electronic Co., Tehran, Iran</b>	<b>Full-time job</b>
<b>Technical Director</b>	<b>Sep. 2006, March 2009</b>
<p>Spearheaded planning, installation, and post-sales support for medical imaging software, including PACS and 3D visualization. Troubleshot and identified root causes of client complaints, providing corrective and preventive maintenance. Coordinated stand-alone and enterprise installation and service, including software system installation plans. Coached and directed technical staff to meet corporate goals and client needs.</p>	

### Highlights & Accomplishments:

- Completed PACS implementation for 1,000-bed hospital within 4 days.
- Developed technical documents and processes from ground up for new company.
- Resolved 100% of client issues in 3 years, with zero cases left open.
- Attained 100% success rate for PACS hardware and software installation plans.

**Control & Intelligent Processing Center of Excellence, Tehran, Iran**

**Part-time job**

**Executive officer**

**Sep. 2004- Sep. 2006**

Website administrator, developed a dual language portal (English/Farsi) using a free open source content management system called XOOPS.  
Office and paper work coordinator.

### Computer Skills

Proficient or familiar with an array of programming languages, software packages, concepts and technologies, including:

MATLAB  
Image Processing Toolbox

C

Windows, Linux

FreeSurfer, FSL, SPIN

### Areas of Expertise

Medical Imaging Installation & Service • Field Engineering & Support • Client Relations  
Preventive & Corrective Maintenance • Documentation & Manuals • Process Improvement  
Staff Training • Technical Analysis • Resource Allocation • Computer Hardware & Networks

### Activities and Interests

**Groups** International student support group

**Sports** Jogging, Football

### Languages

**Persian** (native)

**English** (TOEFL 88/120),