

TOKTAM KHATIBI

(*Curriculum Vitae*)

Associate professor, Faculty of Industrial and Systems Engineering, Tarbiat Modares University. Phone: +982182883913

Email: toktam.khatibi@modares.ac.ir , toktamk@gmail.com

Google Scholar URL:

https://scholar.google.com/citations?hl=en&user=qmy_4oEAAAAAJ&view_op=list_works&sortby=pubdate

Linked-in URL:

<https://www.linkedin.com/in/toktam-khatibi-77271683/>

Official page:

<https://www.modares.ac.ir/~toktam.khatibi>

Education:

1. Ph.D.

Ph.D. in Industrial Engineering, Tarbiat Modares University, 2009- 2014, GPA: 18.51/20.

Supervisor: Dr. Mohammad Mehdi Sepehri.

Advisors: Dr. Pejman Shadpour, Dr. Seyyed Hesamoddin Zegordi

Dissertation title: *"Interrupt analysis in laparoscopic surgery via video processing"*. Grade: 20/20.

2. M.Sc.

M.Sc., Socio-economical (industrial) Engineering, Tarbiat Modares University, 2006-2008. GPA: 18.43/20 - The first rank in the class (2007-2009)

Supervisor: Dr. Mohammad Mehdi Sepehri.

Thesis title: *"Opinion mining (sentimental text mining) for Persian documents"*

3. B.Sc.

B.Sc., Computer Engineering, Software Engineering, Sharif university of technology, 1997- 2002.

B.Sc. Project title: *"Web-based multimedia java trainer"*

Awards

- Top graduate as qualified by Iran National Elites Foundation
 - The first rank in the M.Sc. education in the class, 2007-2009.
 - Bronze medal for mathematical Olympia in Iran, 1995.
 - 495th grade in the overall universities entrance examination in Iran, 1997.
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Experiences and abilities

- Ph.D. dissertation focusing on medical image analysis based on proposing novel machine learning methods
- M.Sc. thesis focusing on natural language processing for sentiment analysis with analyzing conversational Persian opinions about different products in social media
- Strong experience with using tools for Machine Learning, Deep learning and Data Science around computer vision and Medical Image analysis, e.g., WSI (openslide.org...), CNNs, transfer learning, etc.
- Having experience with using tools for distributing data processing and analysis such as Spark.
- Being familiar and up to date with the latest developments in the academic research - and in the open-source community and publishing several articles using and proposing novel state-of-the-art machine learning methods for different problems
- A methodical problem-solving approach, effective communication skills and a strong desire to own and drive your work
- Teaching experience (several years) for machine learning fundamentals, such as cross-validation, hyper-parameter tuning, model optimization and bias-variance tradeoff.
- Several experiences for supervising, conducting and/or performing applied and/or theoretical researches with emphasis on machine learning fundamentals
- Having several experiences using transformers and novel deep learning methods for natural language processing
- Having experiences for cheminformatics and drug discovery, genomic and bioinformatics data analytics
- Being familiar with software version control such as Git and cloud computing platforms such as Google Cloud Platform (GCP)

Research focus

- Health care Data analytics
- Data analytics (including complex data and big data) with emphasis on Health datasets
- Machine Learning and Deep Learning (Specially in healthcare applications)
- Computer vision
- Medical image analysis
- Physiological Signal processing
- Natural language processing (NLP)
- Ontology engineering
- Process Mining

Publications

1. Journal papers

1. Skin lesion detection using an ensemble of deep models, **Multimedia Tools and Applications**, 2022, (with A Shahsavari and S Ranjbari)
2. Proposing novel data analytics method for anatomical landmark identification from endoscopic video frames, **Healthcare Engineering**, 2022, (with S Ayyoubinezhad and MR Sohrabi)
3. Proposing a Two-Step Decision Support System for Differential Diagnosis of Tuberculosis from Pneumonia, **Journal of Sustainable Operations and Computers**, 2022, (with A Farahani, H Sarmadian and A Boskabadi)
4. Distributed Big Data Analytics Method for the Early Prediction of the Neonatal 5-Minute Apgar Score before or during Birth and Ranking the Risk Factors from a National Dataset, **Journal of AI**, 2022, 3, (with A Farahani, MM Sepehri and M Heidarzadeh)
5. Data Quality in Process Mining: A Systematic Review, **Sciences and Techniques of Information Management**, 2022, (with A Salehi, M Aghdasi and M Sheikhmohammady)
6. GrAR: A novel framework for Graph Alignment based on Relativity concept, **Journal of Expert Systems with Applications**, 2022, 187, (with A Soltanshahi, B Teimurpour and H Zare)
7. Proposing a machine-learning based method to predict stillbirth before and during delivery and ranking the features: nationwide retrospective cross-sectional study, **Journal of BMC Pregnancy and Child Birth**, 2021, 21(1): 1-17, (with E Hanifi, MM Sepehri and L Allahgholi)
8. CNFE-SE: a novel approach combining complex network-based feature engineering and stacked ensemble to predict the success of intrauterine insemination and ranking the features, **Journal of BMC Medical Informatics and Decision Making**, 2021, 21 (1): 1-29, (with S Ranjbari, AV Dizaji, H Sajadi, M Totonchi and F Ghaffari)
9. Proposing a novel Cascade Ensemble Super Resolution Generative Adversarial Network (CESR-GAN) method for the reconstruction of super-resolution skin lesion images, **Journal of Informatics in Medicine Unlocked**, 2021, (with A Shahsavari and R Ranjbari)
10. Novel methods for creating an earthquake complex network using a declustered catalog, **Journal of Chaos, Solitons & Fractals**, 2021, 147, (with A Shahraki Ebrahimi and E Yavari)
11. Proposing a novel multi-instance learning model for tuberculosis recognition from chest X-ray images based on CNNs, complex networks and stacked ensemble, **Journal of Physical and Engineering Sciences in Medicine**, 2021, 1-21 (with A Shahsavari and A Farahani)
12. Proposing novel methods for simultaneous cardiac cycle phase identification and estimating maximal and minimal left atrial volume (LAV) from apical four-chamber view in 2-D echocardiography, **Journal of Informatics in Medicine Unlocked**, 2021, 23, 100517 (with N Barzegar and A HosseinSabet)
13. Predicting the number of hospital admissions due to mental disorders from air pollutants and weather condition descriptors using stacked ensemble of Deep Convolutional models and LSTM models (SEDCMLM), **Journal of Cleaner Production**, 2021, 280 (1), 124410, (with N Karampour)
14. Analysis of the satisfaction of in-patients based on data mining, **International Journal of Hospital Research**, 2021, 10 (1), (with R Asadi, MM Sepehri and P Shadpour)

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15. Treatment outcome classification of pediatric Acute Lymphoblastic Leukemia patients with clinical and medical data using machine learning: A case study at MAHAK hospital, **Journal of Informatics in Medicine Unlocked**, 2020, 100399, (with A. Kashef and A. Mehrvar)
 16. Studying the Effects of Systemic Inflammatory Markers and Drugs on AVF Longevity through a Novel Clinical Intelligent Framework, **IEEE Journal of Biomedical and Health Informatics**, 2020, (with A Nakhaei, MM Sepehri and P Shadpour)
 17. A novel noise-robust stacked ensemble of deep and conventional machine learning classifiers (NRSE-DCML) for human biometric identification from electrocardiogram signals, **Informatics in Medicine Unlocked**, 2020, 21, 100469 (with N RabieNejadSadatMahale)
 18. Proposing a novel unsupervised stack ensemble of deep and conventional image segmentation (SEDCIS) method for localizing vitiligo lesions in skin images, **Journal of Skin Research and Technology**, 2020, (with N Rezaei, L Ataei Fashtami and M Totonchi)
 19. Proposing novel methods for gynecologic surgical action recognition on laparoscopic videos, *Journal of Multimedia Tools and Applications*, 2020, 79: 30111-30133 (with P Dezyani)
 20. Analysis of big data for prediction of provider-initiated preterm birth and spontaneous premature deliveries and ranking the predictive features, **Journal of Archives of Gynecology and Obstetrics**, 2019, 300 (6), 1565-1582, (with N Kheyrikoochaksarayee and MM Sepehri)
 21. Identification and weighting of kidney allocation criteria: a novel multi-expert fuzzy method, **Journal of BMC medical informatics and decision making**, 2019, 19 (1), 182, (with N Taherkhani, MM Sepehri, S Shafaghi)
 22. Investigating and Modeling the significant reasons of Percutaneous Coronary Intervention patients to participate rarely in cardiac rehabilitation-A data mining approach, **Journal of Health Management & Informatics**, 2019, 6 (2), 56-65, (with T Zamir, MM Sepehri, H Aghajani, M Khakzar Bafraei)
 23. Proposing feature engineering method based on deep learning and K-NNs for ECG beat classification and arrhythmia detection, **Journal of Australasian Physical & Engineering Sciences in Medicine**, 2019, (with R Nooshin)
 24. An intelligent warning model for early prediction of cardiac arrest in sepsis patients, **Journal of Computer Methods and Programs in Biomedicine**, 2019, 178, 47-58, (with S Layeghian Javan, MM Sepehri, M Layeghian Javan)
 25. An analytical model based on simulation aiming to improve patient flow in a hospital surgical suite, **Journal of Industrial and Systems Engineering**, 2018, 12 (1), 66-82, (with R Khasha and MM Sepehri)
 26. Expert Triage System in Cardiology Emergency Department, **INTERNATIONAL JOURNAL OF COMPUTER SCIENCE AND NETWORK SECURITY**, 2018, 18 (10), 100-104, (with F Moghbeli, M Langarizadeh, M Kiavar, A Nikpajouh)
 27. Mobile GIS based monitoring Asthma attacks based on environmental factors, **Journal of Cleaner Production**, 179, 417-428, (with R. Khasha, Mohammad Mehdi Sepehri, S.A. Mahdavian).
 28. Extraction and Comparison of the Discharge Process in a Teaching Hospital, **International Journal of Hospital Research**, 2017, 6 (1):-, (with Nasim Nejad Jaefari)
 29. Designing an RFID-enabled wasteless system for hemovigilance . *Sci J Blood Transfus Organ.* 2016; 13 (3) :185-196, (with Marjan Soleymani, Mohammad Mehdi Sepehri, Karim Shams Asenjan)
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30. A knowledge map for hospital performance concept: Extraction and analysis, **Iranian journal of public health**, 2016, 45(7): 843–854, (With Nader Markazi-Moghaddam, Mohammad Arab, Hamid Ravaghi, Arash Rashidian and Sanaz Zargar Balaei Jame)
 31. Designing a Cost Based Systematic Framework for Heart STEMI Patients by pPCI and Thrombolytic Treatments, *Hospital*, 2015, 14 (3): 9-21, (with Masoumeh Saeedian, Mohammad Mehdi Sepehri and Hassan Aghajani)
 32. Percutaneous Coronary Intervention (PCI) Knowledge Map Using Fuzzy Cognitive Map, **Journal of Management of Technology Development**, 2015, 2 (1): 79-106, (with Samira Korani and Mohammad Mehdi Sepehri)
 33. Data Mining Approach for Prediction of Erythropoietin Drug Dosage in Hemodialysis Patient, **Journal of Mazandaran University of Medical Sciences**, 2015, 25 (129) :26-35, (with Akram Tavousi, Mohammad Mehdi Sepehri and Tahereh Malakoutian)
 34. Prioritizing interrupt causes in minimally-invasive surgeries based on identifying causal relations between interrupt causes, **Journal of industrial engineering (JIENG)** (indexed in ISC), 2015, 49(1): 33-43, (with Mohammad Mehdi Sepehri, Pejman Shadpour and Seyyed Hesamoddin Zegordi)
 35. A novel unsupervised approach for minimally-invasive video segmentation, **Journal of medical signals and sensors** (indexed in ISI, Medline and ISC), 2014, 4 (1): 53-71, (with Mohammad Mehdi Sepehri and Pejman Shadpour)
 36. SIDF: A Novel Framework for Accurate Surgical Instrument Detection in Laparoscopic Video Frames, **International journal of hospital research** (indexed in ISC), 2013, 2 (4): 163-170, (with Mohammad Mehdi Sepehri and Pejman Shadpour).
 37. Risk management based approach for identification and ranking of surgical cancellation factors using Fuzzy FMEA, **International journal of hospital research** (indexed in ISC), 2013, 2(1): 17-24, (with Roghiyeh Khasha and Mohammad Mehdi Sepehri).
 38. Fuzzy FMEA application to improve workflow in operating rooms, **Journal of industrial engineering (JIENG)** (indexed in ISC), 2013, 47 (2): 135-147, (with Roghiyeh Khasha, Mohammad Mehdi Sepehri and Alireza Soroush)
 39. A Fuzzy FMEA approach to prioritize surgical cancellation factors, *International Journal of Hospital Research*, 2013, 2(1): 17-24 (with R Khasha and MM Sepehri)

2. International conference papers

- A framework for monitoring patients in the recovery room using Kinect, 11th international industrial engineering conference (IIEC 2015), Iran, 2015, (with Mohammad Mehdi Sepehri and Hamed Mollaei)
- 0-1 Mathematical programming models for laparoscopic activity recognition, 9th international industrial engineering conference (IIEC 2013), Iran, 2013, (with Mohammad Mehdi Sepehri and Pejman Shadpour).
- Laparoscopic instrument detection with a new image segmentation algorithm (GNSTIS), The first international conference on Electronic health, Iran, 2012, (with Mohammad Mehdi Sepehri and Pejman, Shadpour).
- Time series representation and clustering with directional distance based features (DDBF), 9th international conference on electronics, computer and computation (ICECCO), Turkey, 2012, (with Mohammad Mehdi Sepehri and Pejman Shadpour).
- Design a comprehensive framework for evaluationg the readiness of starting surgical operation based on surgical cancellation reduction, The first international conference on Electronic health, Iran, 2012, (with Roghiyeh Khasha and Mohammad Mehdi Sepehri).

3. National conference papers

Devising Novel Algorithms for Information Extraction from Live Laparoscopic Imaging, 5th Iranian Endourology & Urolaparoscopy Society Congress (IEUS), 2012, (with Pejman Shadpour and Mohammad Mehdi Sepehri).

Enhancing the Process of Image Recording Through Intelligent Analysis of Motion in the Camera and Laparoscopic Instruments, 5th Iranian Endourology & Urolaparoscopy Society Congress (IEUS), 2012, (with Shadpour Pejman and Mohammad Mehdi Sepehri).

4. Academic book

Ontologies: Methodologies, Tools and Languages, **Tarbiat modares university press**, 2011, (with Asoushe Abbas, Mehrasa Shohreh, Khakshour Saadat Parisa).

5. Book Chapters

1. New Features Extracted from Renal Stone NCCT Images to Predict Retreatment After Shockwave Lithotripsy (SWL), In: Elham Akhondzadeh Noughabi, Bijan Rahemi, Amir Albadvi and Behrooz H. Far.(ed.), **Handbook of Research on Data Science for Effective Healthcare Practice and Administration**, IGI Global, 2018, 296-316, (with Mohammad Mehdi Sepehri, Mohammad Javad Soleimani and Pejman Shadpour).
2. Applications of Image Processing in Laparoscopic Surgeries: An Overview, In: Elham Akhondzadeh Noughabi, Bijan Rahemi, Amir Albadvi and Behrooz H. Far.(ed.), **Handbook of Research on Data Science for Effective Healthcare Practice and Administration**, IGI Global, 2018, 317-344, (with Mohammad Mehdi Sepehri, Pejman Shadpour and Seyyed Hesamoddin Zegordi).

Work experiences as faculty member

Faculty member of Industrial engineering department, School of Industrial and systems engineering, Tarbiat Modares University, (2015-till now).

Leadership experiences

Head of Industrial engineering department, School of Industrial and systems engineering, Tarbiat Modares University, (2020-till now).

Teaching experiences

Deep Learning for Healthcare Data Analytics, Tarbiat Modares University, Industrial and Systems Engineering Department.

Clinical Data mining, Tarbiat Modares University, Industrial and Systems Engineering Department.

Data Mining and Knowledge Discovery, Tarbiat Modares University, Industrial and Systems Engineering Department.

Artificial Neural Networks and Intelligent Systems in Medicine, Medical Informatics Department, School of Health management and Information Sciences, Iran University of Medical Sciences.

Crowdsourcing and Crowd Activities, Tarbiat Modares University, Industrial and Systems Engineering Department.

Information Technology in Healthcare, Tarbiat Modares University, Industrial and Systems Engineering Department.

Process mining and Workflow Modeling in Health, Medical Informatics Department, School of Health management and Information Sciences, Iran University Of Medical Sciences.

Web Applications – Architecture and Development, Tarbiat Modares University, Industrial and Systems Engineering Department.

System Engineering- Project control and Information Technology, School of Health management and Information Sciences, Iran University Of Medical Sciences.

Software Engineering, Tarbiat Modares Tarbiat Modares University, Industrial and Systems Engineering Department.

Data Structures and Algorithms, Tarbiat Modares University, Industrial and Systems Engineering Department.

Software Skills

Python (specially packages such as Scikit-learn, pandas, numpy, keras, tensorflow, pytorch, Scikit-image, pilimage, opencv (cv2), matplotlib and seaborn, flask for web development, pyqt, tkinter, etc)

R (for data mining and statistical analysis)

Matlab (image processing, computer vision, neural networks and deep learning)

PROM (for Process Mining)

C#

Git Version Control

Google Cloud Platform (GCP)

Windows Subsystem for Linux (WSL)

Spark and Hadoop

Tableau

M.Sc. These I Supervised

1. Thesis Title: Brain tumor diagnosis from Magnetic Resonance Images (MRI), Student Name: Amirhossein Seifi, University: Tarbiat Modares University, Defense date: - (Ongoing)
2. Chamber quantification from Cardiac Magnetic Resonance Images, Student Name: Yasser Nazeri, University: Tarbiat Modares University, Defense date: - (Ongoing)
3. Analyzing Tissue-Doppler echocardiography videos for automatic identification of wave peaks, Student Name: MohammadReza Azizi, University: Tarbiat Modares University, Defense date: - (Ongoing)
4. Assessing the success of treatment for Vitiligo patients based on image analysis, University: Tarbiat Modares University, Student Name: Fatemeh Pouzesh, Defense date: - (Ongoing)
5. Keratoconus diagnosis and risk factor scoring based on analyzing clinical and demographic features combined with Pentacam outputted raw matrix, Student Name: Sara Shojaee, University: Tarbiat Modares University, Defense date: - (Ongoing)
6. Cataract diagnosis using medical image analysis, Student Name: Nazanin Shahabi, University: Tarbiat Modares University, Defense date: - (Ongoing)
7. Glaucoma early diagnosis and risk factor scoring based on retinal image analysis, Student Name: Saeed Parsa, University: Tarbiat Modares University, Defense date: - (Ongoing)
8. Biometric identification from panoramic dental X-ray images, Student Name: MirHamidReza Saeidi, University: Tarbiat Modares University, Defense date: - (Ongoing)
9. Thesis Title: Analyzing Electroencephalogram (EEG) signals for prognosis of seizure due to epilepsy, Student Name: Ahmad Nouri, University: Tarbiat Modares University, Defense date: 2021
10. Thesis Title: Analysis of Electroencephalogram signals for emotion recognition, Student Name: Parisa Razavi Yeganeh, University: Tarbiat Modares University, Defense date: 2021
11. Proposing a physician's decision support system for diagnosing Corona disease from Lung CT scan images, Student Name: Faezeh Fayyaz, University: Tarbiat Modares University, Defense date: 2021
12. Thesis Title: Endoscopic video analytics to identify gastrointestinal (GI) lesion, Student Name: Shima Ayoubi Nezhad, University: Tarbiat Modares University, Defense date: 2021
13. Proposing a deep neural network for QSAR for Corona virus datasets, Student Name: Sina Farahzadi, University: Tarbiat Modares University, Defense date: 2021
14. Thesis Title: Proposing a novel approach for EEG-based biometric identification, Student Name: Javad Zarean Dowlatabadi, University: Tarbiat Modares University, Defense date: 2021
15. Thesis Title: Providing a medical system for the diagnosis of subacute thyroiditis based on ultrasound image analysis, Student Name: Saeedeh Sadeghi, University: Tarbiat Modares University, Defense date: 2020
16. Thesis Title: Designing a Predictive Model for Glaucoma Disease, Student Name: Mahyar Sharifi,
17. Thesis Title: Congenital Abnormality Prediction based on supervised techniques, Student Name: Elham Hanifi, University: Tarbiat Modares University, Defense date: 2020
18. Thesis Title: Surgical Action Recognition by using Laparoscopic Video, Student Name: Parastoo Dezyani, University: Tarbiat Modares University, Defense date: 2020

19. Thesis Title: Proposing a decision support system for determining the left atrial volume in the apical view of two and four chambers from echocardiography videos based on deep learning, Student Name: Niloofar Barzegar, University: Tarbiat Modares University, Defense date: 2020
 20. Thesis Title: Diagnosis of Respiratory Disorders by Lung Sound Analysis with Deep Learning Approach, Student Name: Zanyar Ghaderi, University: Tarbiat Modares University, Defense date: 2020
 21. Thesis Title: Designing an expert system for skin cancer diagnosis from dermoscopy images based on deep learning, Student Name: Ali Shahsavari, University: Tarbiat Modares University, Defense date: 2020
 22. Thesis Title: Assessing the success of vitiligo treatment based on image processing, Student Name: Niloofar Rezaei, University: Tarbiat Modares University, Defense date: 2020
 23. Thesis Title: Analyzing decision making in the treatment of patients with Acute Lymphoblastic Leukemia (ALL), Student Name: AmirArash Kashef, University: Tarbiat Modares University, Defense date: 2019
 24. Thesis Title: Proposing an Expert System for Biometric Recognition from ECG signals Based on Deep Learning, Student Name: Nooshin Rabienezhad SadatMahaleh, University: Tarbiat Modares University, Defense date: 2019
 25. Thesis Title: Automatic detection of tubule formation in breast histopathological images, Student Name: Mahboobeh Ameli Mahjoob, University: Tarbiat Modares University, Defense date: 2019
 26. Thesis Title: ART outcome prediction using Data Mining Techniques, Student Name: Sima Ranjbari, University: Tarbiat Modares University, Defense date: 2018
 27. Thesis Title: A framework based on data mining for task assignment in crowd sourcing, Student Name: Morteza Kargar Kanani, University: Tarbiat Modares University, Defense date: 2018
 28. Thesis Title: Ranking top causes of delay in birth labor and proposing strategies to reduce the delays, Student Name: Azita Jamali Nataj Ahangar, University: Tarbiat Modares University, Defense date: 2018
 29. Thesis Title: Predicting the preterm delivery based on data mining, Student Name: Naghme Kheyri Koochaksarayee, University: Tarbiat Modares University, Defense date: 2018
 30. Thesis Title: Mining the sequence of patient care services of hospitalized patients, Student Name: MohammadReza Bahri, University: Tarbiat Modares University, Defense date: 2017
 31. Thesis Title: Introducing an approach for stress recognition based on mining vital signs, Student Name: Azita Talachian, University: Tarbiat Modares University, Defense date: 2017
 32. Thesis Title: Proposing a framework for recommender system to patients based on air pollution indices, Student Name: Navid Karampour, University: Tarbiat Modares University, Defense date: 2017
 33. Thesis Title: Design a model for process mining on inpatient discharge, Student Name: Nasim NejadJaefari, University: Tarbiat Modares University, Defense date: 2016
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Ph.D. Dissertations I Supervised

1. Dissertation Title: A Framework Design in Data Cleansing and Predicting Fistula Disorders in Elderly Hemodialysis Patients, Student Name: Akram Nakheri, University: Tarbiat Modares University, Defense date: 2021
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M.Sc. These I Was Advisor

1. Thesis Title: Analyzing picture archiving and communication system (PACS) acceptance by physicians and radiologists in educational hospitals, Student Name: Atefeh Badavi, University: Tarbiat Modares University, Defense date: 2021
 2. Thesis Title: Implementing opinion mining as Farsi-speaking social network Instagram using machine learning approach, Student Name: Maryam Giahi, University: Tarbiat Modares University, Defense date: 2021
 3. Thesis Title: Supply chain network optimization with collaborative transportation management, Student Name: Fereshteh Azizizadeh, University: Tarbiat Modares University, Defense date: 2020
 4. Thesis Title: Providing a codified framework for business process redesign, Student Name: Saba Yousefi, University: Tarbiat Modares University, Defense date: 2019
 5. Thesis Title: A study on earthquake patterns in Iran using complex temporal networks, Student Name: Ammar Shahraki Ebrahimi, University: Tarbiat Modares University, Defense date: 2019
 6. Thesis Title: Designing a big data p4 medicine based registry (P4MR) framework Data Analytics and Visualization of Iranian Maternal and Neonatal's (IMaN) Registry, Student Name: Ali Sanaei Nameghi, University: Tarbiat Modares University, Defense date: 2019
 7. Thesis Title: Improvement of the processes of the Emergency Call central through process mining, Student Name: Zahra Ghasemi, University: Tarbiat Modares University, Defense date: 2019
 8. Thesis Title: Evaluation of improvement strategies in the periodic medical exam process of a family health practice by Use of Simulation, Student Name: Saba Naderian Jahromi, University: Tarbiat Modares University, Defense date: 2018
 9. Thesis Title: Process mining of day care ward processes in a hospital, Student Name: Mohammad Mohammadi, University: Tarbiat Modares University, Defense date: 2017
 10. Thesis Title: Medication Process Mining in The Hospital with the aim of error recognition and reduction, Student Name: Fatemeh Jalalifar, University: Tarbiat Modares University, Defense date: 2017
 11. Thesis Title: Designing a recommender system framework for monitoring the children weights in mobile health, Student Name: Zeinab Zarei, University: Tarbiat Modares University, Defense date: 2016
 12. Thesis Title: An Automatic Gesture Recognition System in Recovery Section of Hospitals, Student Name: Hamed Mollaei Azirani, University: Tarbiat Modares University, Defense date: 2015
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Ph.D. Dissertations I Was Advisor

1. Dissertation Title: Designing an Optimal Information Exchange Model in A Pathology Centers Network, Student Name: Mehdi Taghipour Anvari, University: Tarbiat Modares University, Defense date: 2021
2. Dissertation Title: Designing an Intelligent Tutoring System based on learner's behavioral-emotional characteristics, Student Name: Zahra Karami Mehr, University: Tarbiat Modares University, Defense date: 2020

3. Dissertation Title: Designing the Iranian Model for Kidney Allocation from Deceased Donor, Student Name: Nasrin Taherkhani, University: Tarbiat Modares University, Defense date: 2020
4. Dissertation Title: Designing a smart intervention-based system for self-management of patients suffering from asthma in mobile-health platforms, Student Name: Roghayeh Khasha, University: Tarbiat Modares University, Defense date: 2019
5. Dissertation Title: Designing a real-time monitoring system of cardiac status and real-time predicting myocardial infarction in septic patients, Student Name: Samaneh Layeghian Javan, Defense date: 2019

Other research projects in industry

- Medical prescription classification using Long Short-Term Memories (LSTMs)
- Ontology extraction for Virtual breeding environments using machine learning methods
- Drug-drug interaction identification using semi-supervised methods
- Semantic analysis of user comments in Instagram for identifying their semantic orientation
- Designing a framework for Reading Center of Ophthalmology Images
- Asset classification for Private documents in an organization
- Text mining of self-declared symptoms for persons suspected to COVID-19