

CURRICULUM VITAE



Personal information

Surname(s) / First name(s) **Darzi, Mohammad**
Address(es) No.146, South Gandhi Ave., Vanak Sq., Tehran, Iran.
Telephone(s) Mobile: +98 2188795885
E-mail(s) modarzi@yahoo.com
Google Scholar Add. <https://scholar.google.com/citations?user=H5UUYAAAAAJ&hl=en>
Nationality(-ies) Iranian
Date of birth March 18th, 1977
Gender Male / Married

Research interests

- Genomic Data Analysis
- Biological network Analysis
- Machine Learning
- Data Mining
- Complex Network
- Information Systems

Publications

Peer-Reviewed Papers:

- [1] **Darzi.M**, Gorgin.S, Majidzadeh-A.K, Esmaeili.R, “Gene co-expression network analysis reveals immune cell infiltration as a favorable prognostic marker in non-uterine leiomyosarcoma”, Scientific Reports (Nature Group Publisher), 11, 2339 (2021). <https://doi.org/10.1038/s41598-021-81952-8>.
- [2] **Darzi.M**, Gorgin.S, Majidzadeh-A.K, Esmaeili.R, “Identification of Prognostic Genes in Her2-enriched Breast Cancer by Gene Co-Expression Network Analysis”, Iranian Journal of Breast Diseases (IJBD), vol.14, Issue.1, 2021; 49-63. <https://doi.org/10.30699/ijbd.14.1.49>
- [3] **Darzi.M**, Olfatbakhsh.A, Gorgin.S, Oveisi.F, Hashemi.E, Alavi.N, “ Imbalanced Data Classification for Primary Diagnosis of Breast Diseases by AdaBoost.M1, K-Nearest Neighbor and Probabilistic Neural Network”, Iranian Journal of Breast Disease, vol.9, Issue.2, September 2016.
- [4] **Darzi, M.**, Hosseini, M., Liaei, A.A., M.Manesh, Z., Asghari, H. (2011) “A Hybrid Fuzzy Case-based Recommender System for Recommending Training Courses to SMEs”, Journal of Technology of Education (JEIT), Vol.5, No.2, pp.101-113, March 2011. <https://doi.org/10.22061/TEJ.2010.309>

Conference Proceedings, Presentations, and Posters:

- [1] **Darzi.M**, Gorgin.S, Majidzadeh-A.K, Esmaeili.R, “Weighted gene co-expression network identified CHAMP1, PPP1R26, and PRRC2B as prognostic genes in HER2-enriched breast cancer”, 11th International Congress of Breast Cancer, January 2022, Tehran, Iran.
- [2] Kolahehdoozan.S, Jafarbeik-Iravani.N, **Darzi.M**, Majidzadeh-A.K, Esmaeili.R, “Evaluation of ASXL1 and its derived circRNA expression in the liquid biopsy in breast cancer”, Journal of Emerging Diseases and Preventive Medicine (Conference Proceeding), vol.3, Issue 4, June 2020.
- [3] Kolahehdoozan.S, Jafarbeik-Iravani.N, **Darzi.M**, Majidzadeh-A.K, Esmaeili.R, “CircRNA expression in serum exosome in breast cancer”, 10th International congress of breast cancer, 3rd national seminar of sarcoma, October 2019, Tehran, Iran.
- [4] Sandooghdar, A., **Darzi, M.**, Ghahari, M., “The long tail of social networking: revenue models of social networking sites (2014)”, Proceeding of Social Networks Conference, Tehran, Iran.
- [5] **Darzi, M.**, Ghahari, M., “Second life and new generation of virtual world (2012)”, Proceeding of Second Life Conference, Tehran, Iran.

[6] **Darzi, M.**, Liaei, A.A., H., Hosseini, M., Asghari, H. (2010), "Feature Selection for Breast Cancer Diagnosis: A Case-Based Wrapper Approach", World Academy of Science, Engineering and Technology (WASET) Year 7, ISSUE 77, June 2011.

[7] **Darzi, M.**, M.Manesh, Z., Liaei, A.A. , H., Hosseini, M., Asghari, H. (2010) "FCRS: A Fuzzy Case-based Recommender System for SMEs", International Conference on Educational Technology and Information Technology (ICEIT), 17-19 September 2010, Chongqing, China. IEEE Press, ISBN: 978-1-4244-8034-0, pp. V3-21 -- V3-26

[8] Keramati, A.,**Darzi, M.**, Hosseini, M., Liaei, A.A., Cultural algorithm for feature selection, 3rd International Conference on Data Mining and Intelligent Information Technology Applications (ICMIA), 2011, Macao, ISBN: 978-1-4673-0231-9

[9] **Darzi, M.**, Hosseini, M., Liaei, A.A., M.Manesh, Z., Asghari, H. "Accelerating growth in high tech MSEs through tacit knowledge sharing using recommender systems ", XXVIII IASP World Conference on Science and Technology Parks, 2011, Copenhagen.

[10] Liaei, A.A, **Darzi, M.**, H., Hosseini, M.Manesh, Z., "Breast Cancer Tumor Classification with Case Based Reasoning", IDMC2010,Persian article, Proceedings of the 4rd Iranian Conference On Data Mining, December 2010, Tehran, Iran.

[11] **Darzi, M.**, Asghari, H., and Szalc A. S., "Analysis of Item-based Collaborative Filtering for providing services for E-Citizen", Persian article, Proceedings of the International Conference on Electronic City, February 2007, Tehran, Iran.

[12] M. Manesh, Z., **Darzi M.**, and Asghari H., "The Fundamental factors in designing a Recommender System", Persian Article, Proceeding of the 2nd Conference on Electronic City, May 2009, Tehran, Iran.

[13] Tahaei, S.M.H., and **Darzi, M.**, "Customer relationship management; Obstacles and Challenges", CRM Tehan' 2010, Proceedings of the Iranian Conference on Customer Relationship Management, Held in Beheshti University, May 2010, Tehran, Iran.

[14] **Darzi, M.**, and Ghasemi, M., "Study on Advantage and Disadvantage of E-Health in Electronic City", E-City'09,Persian article, Proceedings of the Second Iranian Conference On Electronic City held in Tehran, May 2009, Tehran, Iran.

Books:

[1] **Darzi.M;** Asghari, H; M. Manesh Z., "Introduction on Recommender Systems; Algorithms and Application", publishing by ICT Research Institute, ISBN: 978-600-102-174-9, ISBA Press, 2011.

<http://opac.nlai.ir/opac-prod/bibliographic/2234039>

[2] Ghazi Maghrebi. Saeid; **Darzi. M;** Asghari. Habibollah, "Proceeding of the First Conference on Cyber Defence", Iranian National Conference on Electronic City, ISBN: 978-600-102-282-1, 18-19 February 2012.

<http://opac.nlai.ir/opac-prod/bibliographic/2691239>

[3] Mahmoud Sheikh Zeinoddin, Habibollah Asghari, **Darzi, M.**, "Technology Incubation: Elite's Views", being published by Rooyesh ICT Incubator-ACECR, 2011.

<http://opac.nlai.ir/opac-prod/bibliographic/2372290>

[4] **Darzi, M.**, Asghari,H., " Proceeding of the Second Conference on Electronic City", Iranian National Conference on Electronic City, ISBN: 978-964-2940-73-8, May 2009.

Work experience

- Faculty Member of Genetics Department, Breast Cancer Research Center, Motamed Cancer Institute, ACECR, 2021-present.
- Research Member of RAYAZI Bioinformatics Research Group, 2020-present.

- Faculty Member of Research Institute for Information and communication Technology, ACECR, 2007 to 2021 as follows:
 - Researcher, ITBMD Research Group, 2007- 2009.
 - Founder and Manager of Advanced Information Systems (AIS) Research Group, 2009-2017.
 - Faculty Member, AIS Research Group, 2017- present.
 - Executive chair of the Journal of Information Systems and Telecommunication (JIST), 2017- 2019.
- Communication Manager, ACRCR Public Relation Administration, 2001-2007.
- Member of Editorial board of “Labour Market (Bazare Kar)” Weekly Magazine, 2001-2005.

Teaching

- Electronic Commerce, Science and culture University (SCU), Tehran, Iran.
- Computer Networks, Payame Noor University (PNU), Tehran, Iran.
- IT Project Management, University of Applied Science and Technology (UAST), Tehran, Iran.
- Principle design of Database, University of Applied Science and Technology (UAST), Tehran, Iran.
- System Analysis and Software Engineering (RUP, ARIS), University of Applied Science and Technology (UAST), Tehran, Iran.
- Fundamental of Computer, Allameh Tabataba'i University (ATU), Tehran, Iran.
- Scientific Language of Computer Science, University of Applied Science and Technology (UAST), Tehran, Iran.
- Scientific Language of Management, Science and culture University (SCU), Tehran, Iran.
- Internet Engineering, University of Applied Science and Technology (UAST), Tehran, Iran.
- IT Engineering, University of Applied Science and Technology (UAST), Tehran, Iran.

Thesis Supervisor

- 2012 B.Sc Thesis: Operation Conversation Recommender System, Negar Jadidkar, Science and Culture University (SCU).
- 2012 B.Sc Thesis: Cardiovascular Disease Risk Assessment using Bayesian Networks, Zinab Panje foolad, Science and Culture University (SCU).

Thesis Advisor

- 2007 B.Sc Thesis: Research on Memory-based Collaborative Filtering Algorithms, Bahare Sadat Anooshe, Science and Culture University (SCU).
- 2008 B.Sc Thesis: Technical Analysis of Recommender Systems, Zahra Moradimanesh, Science and Culture University (SCU).
- 2009 B.Sc Thesis: Design and Implementation of a Training Courses Recommender System with Case Based Reasoning, Ali Asghar Liaei, Science and Culture University (SCU).
- 2010 B.Sc Thesis: Analytical Customer Relationship Management Based on Decision Tree and Clustering, Seyed Mohammad Hossein Tahaei, Science and Culture University (SCU).
- 2010 B.Sc Thesis: A Decision Support System in Diagnosis of Breast Cancer, Mohammad Mahdi Amanzade, Science and Culture University (SCU).
- 2012 B.Sc Thesis: Implement Determinate Reliability and Risk Software, Amin Bahirae, Science and Culture University (SCU).

Other Positions Taken

1. Executive chair of the 2nd Conference on Electronic City (E-City'09), May 24, 2009, Tehran, Iran.
2. Executive chair of the 1st Conference on Cyber Defence, Feb 18, 19, 2012, Tehran, Iran.
3. Member of Executive Director of strategic and economic studies research group (2007-2013).
4. Manager of the Informational office of ICT Research Institute- ACECR (2007-2009).
5. Manager of the Education office of ICT Research Institute- ACECR (2009-2011).
6. Member of strategic council of Electronic City (2008-2012).
7. Content Developer ACECR Website (2005-2007).
8. Executive Manager of Communication office of ACECR (2002-2005)
9. Committee Member of designing Short Training Course, Educational Deputy of ACECR.
10. Member of Technology Council in Technology Incubator (Rooyesh Incubator).

Education and training

- PhD, Computer Engineering, Major of Software, Iranian Research Organization for Science and Technology (IROST), Tehran, Iran (2015-2021)
- M.Phil, Information Technology and Econometrics, Major of Computer Network, University of Information Technology and Management (UITM), Rzeszow, Poland (2005-2007)
- BSc, Mine Engineering, Isfahan University of Technology (IUT), Isfahan, Iran (1996-2000)
- Physics and Mathematics, (1992-1996), Shahid Rajaei High School, Alborz, Karaj, Iran.

Personal skills and competences

Mother tongue

Persian

Other languages

English

European level (*)

Understanding		Speaking		Writing			
Listening		Reading		Spoken interaction		Spoken production	
C1	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user

(*) Common European Framework of Reference (CEF) level

Technical skills and competences

- 1- RNA-seq data preparation pipeline and analysis Including:
 - Quality Control
 - Trimming
 - Aligning to the Reference Genome via HISAT2, and Bowtie tools
 - Counting with htseq-count tool
 - Normalizing genomic data with different methods
 - Batch effect detecting with packages such BatchQC
 - Batch Effecting Removal through packages such as “sva”
- 2- Work experience with microarray data analysis
- 3- ChIP-seq and Whole-Genome Bisulfite Sequencing (WGBS) preparation pipeline and analysis including:
 - Align ChIP-seq and WGBS sequence data to a reference genome through BWA or Bismark
 - Explore the features of the SAM/BAM format using samtools
 - Call methylation profiles
 - Explore motifs in ChIP-seq peaks using HOMER
- 4- Work experience with Noncoding RNA such as microRNA data
- 5- Work experience with Circular RNA analysis including:
 - Preparation all processes on NGS data as described before
 - Identifying Circular RNA through SAM file using CIRI2 pipeline
 - Finding DEGs of circRNA between case and control group
- 6- Work experience with Weighted Gene Co-expression Network Analysis (WGCNA) for analysis of Genomic data through Network approach.
- 7- Visualizing Genomic Network through Cytoscape platform
- 8- Work experience for running single gene survival analysis and cluster based survival analysis
- 9- Different classifying and clustering data through machine Learning algorithms.

Computer skills and competences

R Programming, Python, SQL Management, Linux Administrator, Packet Tracer, Weka, Cytoscape, Gephi, Biological tools such as htseq-count, bowtie, HISAT2, BWA, Samtools

Social skills and competences

Sociability, diplomacy, tact, facile and rapid integration in different social groups and spaces, good human relation, public speaking and communication skills

Organisational skills and competences

Experience in Project Management and logistic, coordinating and training teams due to my job responsibilities

Certificate

- “How to Write a Review Article workshop”, Royan Institute, By Dr Sharif Moradi, 2020.
- “Cancer Genomic Data Analysis workshop”, Royan Institute, By Dr Ali Sharifi Zarchi, 2017.
- “Power of Visualization in Data Science with R and ggplot2 workshop”, Systems biology Group, Institute Pasteur, 2018.
- “Text Mining in R Workshop”, Systems biology Group, Institute Pasteur, 2019.
- “Biological Network Analysis workshop”, Motamed Cancer Institute, 2019.
- Computer Networks:
 - CCNA 1 - Networking Basics
 - CCNA 2 - Router and Routing Basics
 - CCNA 3 - Switching Basics and Intermediate Routing
 - CCNA 4 – WAN Technologies
- Certificate of attendance at “Data Mining” workshop was supported by Amirkabir University of Technology, December 2007
- Certificate of attendance at “Risk Management on E-Banking” workshop was supported by 2nd E-City’09 Conference, May2009.
- Certificate of attendance at “Search Engine Optimization(SEO)” workshop was supported by 2nd E-City’09 Conference, May2009.
- Certificate of attendance at “Foundation of Information technology and Infrastructure Library (ITIL)” workshop was supported by Research & Technology Deputy of Academic Centre for Education, Culture, and ResearchMay2009.
- Certificate of attendance at “Security of Supervisory Control and Data Acquisition (SCADA)” workshop was supported by "Pars Telecom Systems Group", Feb 19, 2012.
- Certificate of attendance at “Security of Web Application” workshop was supported by "ICT Research Institute", Feb 19, 2012.

Artistic skills and competences Singing

Other skills and competences continual self-perfection, creativity, End-oriented work capacity, Problem-solving attitude, Responsibility, Self-respect and self-reliance, Strong referential values of fairness, equity and dignity

Research activities

- Co-worker as bioinformatician in "Investigating the expression of circular RNAs with systems biology approaches and biological evaluation in liquid biopsy in patients with breast cancer in order to find metastasis predictive biomarkers", Genetics Department, Motamed Cancer Institute, (October 2020- present).
- Project Manager of "Analysis, Design and Implementation of Research management System (RMS)", Research and Technology deputy of ACECR, (September 2011– 2015).
- Project Manager of "Requirement Analysis for developing Health Information System (HIS)", Royan Research Institute (September 2010 – September 2011).
- Project Manager of "Analysis of USA policy in Cyber Space", Research and Technology deputy of ACECR, (October 2012– 2013).
- Project Manager of "Survey and Analysis on Recommender Systems Technology in E-business; A Sample Implementation", Information Systems (IS) research group of ICT Research Institute, (September 2008 – February 2010).
- Participating in researching on "Designing Human Resource Development in Communication Regulatory Authority (CRA) of the Iran", ITBM Research Group, (March 2011 – December 2011).
- Participating in researching on "Designing and developing a Fuzzy case base Recommender system for Iranian SMEs", (April 2009 – February 2010).

- Participating in researching on "Analysis and Designing a web based e-recruitment system (www.bazarekar.ir)", Labour Market information Centre (2003-2004).
- Participating in researching on "Multimedia Contact centre of Agriculture Bank: The Analytical Study for Advantage, Technical Implementation Requirement, Structural Positioning and Technological Domain, Iranian Agriculture Bank (September 2010 – September 2011).
- Participating in researching on "Developing an Integrated Statistical System for measuring national IT Indices: In two selected provinces in Iran", Strategic and economic studies Research group of ICT Research Institute, (2009- 2010).
- Participating in researching on "Plan of developing solutions to increase ICT Share in Economy Growth", Iran Telecommunication Research Centre, (September 2009- 2010).
- Participating in researching on "Economic Development Master Plan of ICT Services and Infrastructures", Iran Telecommunication Research Centre, (July 2008-June 2009).
- Designer of "E-Marketing Course", Educational Deputy of ACECR, (September 2007 – December 2007).
- Designer of "Bioinformatics Course", Educational Deputy of ACECR, (May 2009 – July 2009).
- Designer of "Analysis and Designing Recommender System Course", Research and Technology Deputy of ACECR, (April 2009 – August 2009).

Names and email addresses of References:

	Name	Position	Email
1.	Dr. Rezvan Esmaili	-Associate Professor, Molecular Genetics -Head of Genetics Department, Breast Cancer Research Centre Motamed Cancer Institute, ACECR, Tehran, Iran	esmaeili.rezvan@gmail.com
2.	Dr. Saeed Gorgin	Associate Professor, Department of Electronic Engineering and Information Technology, Iranian Research Organization for Science and Technology (IROST), Tehran, IRAN	gorgin_81@yahoo.com
3.	Dr. Izabela Cihochca	Assistant Professor, University of Information Tech. and management, Rzeszow, Poland	icichocka@wsiz.rzeszow.pl