Reza Mortazavi Ph.D.

Associate Professor of Computer Engineering

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Associate Professor with more than a decade of research in **data privacy and statistical disclosure control**—microaggregation, k-anonymity, and social-network graph anonymization—and, more recently, in **graph neural networks, time-series anomaly detection, and deep learning for remote sensing**. Author of 30 journal articles (seven in JCR-indexed journals, including *Knowledge-Based Systems*, *Expert Systems with Applications*, *Data Mining and Knowledge Discovery*, and *Information Fusion*), 28 conference papers, and co-author of *HyperDbg*, published at ACM CCS 2022. Corresponding author on 12 papers. Extensive academic leadership as School Dean, Department Head, and University IT Director.

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CITATIONS

10
H-INDEX

10
I10-INDEX

Google Scholar, November 2026 · Scopus h-index 8

EDUCATION

2010 – 2015 **Ph.D. in Computer Engineering – Software Systems**, Tarbiat Modares University, Tehran, Iran
Dissertation: *Personalized Privacy Model for Microdata Publishing*
Commended dissertation, Iranian Society of Cryptology; 2nd rank in the Ph.D. entrance examination

2005 – 2007 **M.Sc. in Information Technology Engineering – Telecommunications Security**, K. N. Toosi University of Technology, Tehran, Iran
Thesis: *Security in Software Implementation*

2001 – 2005 **B.Sc. in Computer Engineering – Software**, Shahid Beheshti University, Tehran, Iran
Final project: *Handwriting Recognition*

ACADEMIC APPOINTMENTS

Nov 2025 – Present **Associate Professor**, Department of Computer Engineering, School of Engineering, Damghan University

2015 – Nov 2025 **Assistant Professor**, Department of Computer Engineering, School of Engineering, Damghan University

ADMINISTRATIVE APPOINTMENTS

2024 – 2026 **Director of Information Technology**, Damghan University

2022 – 2024 **Director of Cultural and Social Planning**, Damghan University

2020 – 2022 **Secretary**, Forum of Faculty Members and Academic Elites, Damghan University

2016 – 2019 **Dean**, School of Engineering, Damghan University

2015 – 2016 **Head**, Department of Computer Engineering, Damghan University

RESEARCH INTERESTS

- Data privacy and statistical disclosure control; microaggregation; graph and social-network anonymization
- Database security; cryptography and secret sharing
- Machine learning and deep learning; graph neural networks; data mining
- Time-series analysis and anomaly detection; remote-sensing image analysis

HONORS AND AWARDS

2022, 2025 Outstanding Instructor Award, Damghan University

2015 Commended Ph.D. Dissertation, Iranian Society of Cryptology

2010	2nd Rank, Ph.D. Entrance Examination, Tarbiat Modares University
2005	National Rank 39, Nationwide M.Sc. Entrance Examination (Konkur)
2001	National Rank 479, Nationwide B.Sc. Entrance Examination (Konkur)

PUBLICATIONS

Complete lists, reverse chronological. Bold indicates the CV owner. Summary: 30 journal articles (7 JCR-indexed: 3 Q1, 2 Q2, 2 Q3), 28 conference papers, 4 books.

Journal Articles

[J1] S. H. Erfani, M. J. Fadaeieslam, **R. Mortazavi**, M. Rahmanimanesh, "Statistical correlation elimination for out-of-distribution generalization in graph neural networks," *Journal of AI and Data Mining*, 2026 (article in press). doi:10.22044/jadm.2026.17523.2892

[J2] S. H. Erfani, M. J. Fadaeieslam, **R. Mortazavi**, M. Rahmanimanesh, "SSGNN: Simple siamese graph neural networks for out-of-distribution generalization," *Knowledge-Based Systems*, 329:114290, 2025. Q1 doi:10.1016/j.knosys.2025.114290

[J3] **R. Mortazavi**, S. Gharechelou, S. Khoshnevisan, E. Khoshnevisan, S. F. Khakzad, "Improved semantic segmentation for urban mapping with a combined loss function approach," *International Journal of Remote Sensing*, 2025. Q3 doi:10.1080/01431161.2025.2555284

[J4] **R. Mortazavi**, E. Enayati, A. Basiri, "Accelerated sequential data clustering," *Journal of Classification*, 41(2):245–263, 2024. Q2 doi:10.1007/s00357-024-09472-4

[J5] E. Enayati, **R. Mortazavi**, A. Basiri, J. Ghasemian, M. Moallem, "Time series anomaly detection via clustering-based representation," *Evolving Systems*, 15(4):1115–1136, 2024. Q3 doi:10.1007/s12530-023-09543-8

[J6] E. Enayati, **R. Mortazavi**, A. Basiri, J. Ghasemian, M. Moallem, "A novel sliding window-based model for outlier detection in multivariate time series," *Soft Computing Journal* (University of Kashan), 2024 (article in press). Persian doi:10.22052/scj.2024.253155.1160

[J7] A. Mahdifar, **R. Mortazavi**, R. Jamshidi, V. Aliakbar, M. E. Sadeghi, "Assessing e-commerce service quality: A hierarchical evaluation model for online sales firms," *International Journal of Innovation in Management, Economics and Social Sciences*, 4(1), 2024.

[J8] S. Khoshnevisan, S. Gharechelou, **R. Mortazavi**, S. F. Khakzad, "Water bodies extraction from remote sensing data by comparison of deep learning models," *Ecohydrology* (University of Tehran), 11(3), 2024. Persian

[J9] E. Enayati, **R. Mortazavi**, A. Basiri, "Detection of cardiac anomalies using cost-sensitive deep learning," *Computing Sciences* (Iranian Informatics Society), 29, 2023. Persian

[J10] **R. Mortazavi**, S. Mortazavi, A. Troncoso, "Wrapper-based feature selection using regression trees to predict intrinsic viscosity of polymer," *Engineering with Computers*, 38(3):2553–2565, 2022. Q1 doi:10.1007/s00366-020-01226-1

[J11] **R. Mortazavi**, S. H. Erfani, "GRAM: An efficient (k, l) graph anonymization method," *Expert Systems with Applications*, 153:113454, 2020. Q1 doi:10.1016/j.eswa.2020.113454

[J12] **R. Mortazavi**, "Repeated record ordering for constrained size clustering," *International Journal of Engineering, Transactions A: Basics*, 33(7):1266–1273, 2020.

[J13] **R. Mortazavi**, "Improved univariate microaggregation for integer values," *ISeCure – The ISC International Journal of Information Security*, 12(1):35–43, 2020.

[J14] S. H. Erfani, **R. Mortazavi**, "A novel graph-modification technique for user privacy-preserving on social networks," *Journal of Telecommunications and Information Technology*, 2019(3):27–38. doi:10.26636/jtit.2019.134319

[J15] H. Bypour, M. Farhadi, **R. Mortazavi**, "An efficient secret sharing-based storage system for cloud-based IoT," *International Journal of Engineering, Transactions B: Applications*, 32(8), 2019. doi:10.5829/ije.2019.32.08b.07

[J16] **R. Mortazavi**, "An improved method for graph data anonymization with emphasis on preserving the average path length," *Journal of Electronic and Cyber Defence* (Imam Hossein University), 7(2):25–32, 2019. Persian

[J17] **R. Mortazavi**, S. H. Erfani, "An effective method for utility preserving social network graph anonymization based on mathematical modeling," *International Journal of Engineering, Transactions A: Basics*, 31(10):1624–1632, 2018.

[J18] **R. Mortazavi**, "Using a space transformation to solve the travelling salesman problem with a geographic distance criterion," *Tabriz Journal of Electrical Engineering*, no. 4, 2018. Persian

[J19] M. Farhadi, H. Bypour, **R. Mortazavi**, "A hash-based multi-use multi-stage secret sharing scheme with general access structure," *Journal of Electronic and Cyber Defence* (Imam Hossein University), 6(3):107–115, 2018. Persian

[J20] M. Salari, S. Jalili, **R. Mortazavi**, "TBM, a transformation based method for microaggregation of large volume mixed data," *Data Mining and Knowledge Discovery*, 31(1):65–91, 2017. Q2 doi:10.1007/s10618-016-0457-y

[J21] **R. Mortazavi**, S. Jalili, "Fine granular proximity breach prevention during numerical data anonymization," *Transactions on Data Privacy*, 10(2):117–144, 2017.

[J22] Z. Khorsand, **R. Mortazavi**, "An effective algorithm in a recommender system based on a combination of imperialist competitive and firefly algorithms," *Analytical and Numerical Solutions for Nonlinear Equations*, 2(1):1–21, 2017.

[J23] **R. Mortazavi**, S. Jalili, "Enhancing aggregation phase of microaggregation methods for interval disclosure risk minimization," *Data Mining and Knowledge Discovery*, 30(3):605–639, 2016. doi:10.1007/s10618-015-0432-z

[J24] M. Farhadi, H. Bypour, **R. Mortazavi**, "Security analysis of a hash-based secret sharing scheme," *Global Analysis and Discrete Mathematics*, 1(2):93–100, 2016.

[J25] M. Rahbari, J. Fathali, **R. Mortazavi**, "A hybrid algorithm for the path center problem," *Global Analysis and Discrete Mathematics*, 1(2):83–92, 2016.

[J26] **R. Mortazavi**, S. Jalili, "Preference-based anonymization of numerical datasets by multi-objective microaggregation," *Information Fusion*, 25:85–104, 2015. doi:10.1016/j.inffus.2014.10.003

[J27] **R. Mortazavi**, S. Jalili, "A novel local search method for microaggregation," *ISeCure – The ISC International Journal of Information Security*, 7(1):15–26, 2015.

[J28] **R. Mortazavi**, S. Jalili, "Fast data-oriented microaggregation algorithm for large numerical datasets," *Knowledge-Based Systems*, 67:195–205, 2014. doi:10.1016/j.knosys.2014.05.011

[J29] **R. Mortazavi**, S. Jalili, H. Gohargazi, "Multivariate microaggregation by iterative optimization," *Applied Intelligence*, 39(3):529–544, 2013. doi:10.1007/s10489-013-0431-y

[J30] **R. Mortazavi**, M. Rahbari, "Distributed Sybil attack detection in VANET," *International Journal of Computer Applications*, 29(12):25–27, 2011.

International Conference Papers

[C1] "Risk-aware thresholding and validation-calibrated deep neural networks for water potability prediction," *4th Int. Conf. on Challenges and Novel Solutions in Industrial Engineering, Management and Accounting (AI & Systems)*, Damghan, Iran, 2025.

[C2] "Lightweight profit-driven churn prediction using logistic regression and LightGBM," *4th Int. Conf. on Challenges and Novel Solutions in Industrial Engineering, Management and Accounting (AI & Systems)*, Damghan, Iran, 2025.

[C3] "Interpretable decision-tree analytics for overall equipment effectiveness (OEE)," *4th Int. Conf. on Challenges and Novel Solutions in Industrial Engineering, Management and Accounting (AI & Systems)*, Damghan, Iran, 2025.

[C4] **R. Mortazavi**, "Optimal frequency selection for fire-suppression acoustic systems using machine learning," *18th Int. Conf. of the Iranian Operations Research Society (ORSC)*, Damghan, Iran.

[C5] **R. Mortazavi**, "Learning-guided heuristics for the p-median problem," *18th Int. Conf. of the Iranian Operations Research Society (ORSC)*, Damghan, Iran.

[C6] S. F. Khakzad, T. T. Firozjaee, **R. Mortazavi**, E. Khoshnevisan, et al., "Comparative analysis of convolutional neural networks performance in remote sensing for solar panel detection," *10th Int. Conf. on Signal Processing and Intelligent Systems (ICSPIS)*, Shahrood University of Technology, Iran, 2024.

[C7] "Optimal GCC compiler flags via parallel genetic algorithm," *5th Iranian Int. Conf. on Soft Computing (CSC)*, University of Gilan, Iran, 2024.

[C8] "Improving matrix multiplication by reducing overhead coefficients," *5th Iranian Int. Conf. on Soft Computing (CSC)*, University of Gilan, Iran, 2024.

[C9] M. S. Karvandi, M. H. Gholamrezaei, S. Khalaj Monfared, S. Meghdadizanjani, B. Abbassi, A. Amini, **R. Mortazavi**, S. Gorgin, D. Rahmati, M. Schwarz, "HyperDbg: Reinventing hardware-assisted debugging," CORE A* *Proc. ACM SIGSAC Conf. on Computer and Communications Security (CCS '22)*, Los Angeles, USA, 2022, pp. 1709–1723. doi:10.1145/3548606.3560649

[C10] "Improved utility-preserving univariate microaggregation," *25th Int. Computer Conference, Computer Society of Iran (CSICC)*, Tehran, Iran, 2020.

[C11] M. Farhadi, H. Bypour, **R. Mortazavi**, "An efficient secret sharing-based storage system for cloud-based IoTs," *16th Int. ISC Conf. on Information Security and Cryptology (ISCISC)*, Mashhad, Iran, 2019, pp. 122–127. doi:10.1109/ISCISC48546.2019.8985146

[C12] "Deep learning-based detection and grading of diabetic retinopathy," *4th Int. Conf. on Combinatorics, Cryptography and Information Security (CICIS)*, Tehran, Iran, 2019.

[C13] "Evolutionary multivariate microaggregation," *3rd Iranian Int. Conf. on Soft Computing (CSC)*, University of Gilan, Iran, 2019.

[C14] "Automatic compact-vocabulary crossword generator," *3rd Iranian Int. Conf. on Soft Computing (CSC)*, University of Gilan, Iran, 2019.

[C15] "Job scheduling optimization," *3rd Iranian Int. Conf. on Soft Computing (CSC)*, University of Gilan, Iran, 2019.

[C16] "New circuit filter topologies via genetic algorithm," *3rd Iranian Int. Conf. on Soft Computing (CSC)*, University of Gilan, Iran, 2019.

[C17] J. Aminian, **R. Mortazavi**, "A new method for information steganography," *3rd Int. Conf. on Computer Engineering and Expert Systems*, Mashhad, Iran.

[C18] "Crescent detection via image processing," *3rd Int. Conf. on Applied Research in Computer Science and Information Technology*, Iran, 2016.

[C19] "A review of security attacks on OSI layers," *3rd Int. Conf. on Applied Research in Computer Science and Information Technology*, Iran, 2016.

[C20] "A new secret sharing scheme," *1st Int. Conf. on Combinatorics, Cryptography and Information Security (CICIS)*, Noor, Iran, 2016.

[C21] M. Salari, S. Jalili, **R. Mortazavi**, "A utility preserving data-oriented anonymization method based on data ordering," *7th Int. Symposium on Telecommunications (IST 2014)*, Tehran, Iran, 2014, pp. 966–971. doi:10.1109/ISTEL.2014.7000842

[C22] **R. Mortazavi**, S. Jalili, "Iterative constraint satisfaction method for microaggregation problem," *11th Int. ISC Conf. on Information Security and Cryptology (ISCISC)*, Tehran, Iran, 2014. doi:10.1109/ISCISC.2014.6994048

National Conference Papers

[N1] "Hyperparameter optimization of U-Net for image segmentation," *1st Conf. on Artificial Intelligence and Intelligent Processing*, Semnan, Iran, 2022.

[N2] "Hierarchical ID-based cryptography with constant ciphertext," *2nd National Conf. on Computational Sciences*, Damghan University, Iran, 2016.

[N3] "Code obfuscation approaches," *2nd National Conf. on Computational Sciences*, Damghan University, Iran, 2016.

[N4] "Utility-preserving anonymization via data ordering," *2nd National Conf. on Computational Sciences*, Damghan University, Iran, 2016.

[N5] "Applying multidimensional scaling to TSP with an X-ray crystallography application," *23rd Iranian Crystallography and Mineralogy Conference*, Damghan, Iran, 2016.

[N6] "Using image systems to solve TSP with a geographic distance metric," *National Conf. on Spatial Information Technology Engineering*, Tehran, Iran, 2016.

Additional conference papers from 2010–2013 available on request.

Books

[B1] **R. Mortazavi**, H. Davari, *Technical English for Computer Science and Engineering*, 2nd ed., Damghan University Press, 2025, 155 pp. ISBN 978-622-5209-48-0.

[B2] **R. Mortazavi**, H. Davari, *Technical English in Use: Computer Science and Engineering*, Damghan University Press, 2021. ISBN 978-622-974131-3.

[B3] **R. Mortazavi**, M. Mohammadi (translators), *Introduction to Algorithms: A Creative Approach* by U. Manber (Persian translation, 2 vols., Olympiad Series), Danesh Pajouhan Javan, 2017. ISBN 978-600-5230-62-8.

[B4] M. Gholami Baladezaei, A. Hashemi Borzabadi, **R. Mortazavi**, *Basics of Computer and Programming from a Numerical Computation Perspective*, Islamic Azad University of Damghan Press, 2012. ISBN 978-964-10-14-88-1.

GRANTS AND R&D PROJECTS

Co-supervised three Javaneh technology grants funded by the Ministry of Science, Research and Technology through the Semnan Science and Technology Park (2020–2021, 300 M rial each), and carried out the following funded research and R&D projects:

2024 – 2025	Online platform for cultural multimedia products — *Raz-e Sabz Cultural Group* (500 M rial)
2021 – 2022	Online multimedia sales system — *Alshan Afzar Co.* (210 M rial)
2021	3-DOF educational robot: design and development — *Damghan University* (100 M rial)
2019 – 2020	Parent-awareness portal on cyberspace threats — *Ministry of Culture and Islamic Guidance, Semnan Provincial Office* (200 M rial)
2016 – 2017	Design, analysis, and implementation of hash functions and ID-based cryptography — *Sadr ICT Research Center* (30 M rial)
2016 – 2017	Annual staff performance evaluation system — *Damghan University* (22.5 M rial)

NATIONAL STANDARDS CONTRIBUTIONS

2016 – 2018	Member of technical committees, **Iranian National Standards Organization (INSO)**: NFCIP-2 test methods; Internet of Things; Health Informatics—Anatomical Terminology; Automatic Identification and Data Capture; Digital Clothing

TEACHING AND SUPERVISION

- **Graduate courses:** Data Mining; Special Topics in Computer Engineering; Research Methodology and Scientific Presentation
- **Undergraduate courses:** Advanced Programming; Theory of Languages and Automata; Compiler Design; Computer Networks; Mobile Device Programming; Technical English; Fundamentals of Programming (Lab)
- **Supervision:** 18 M.Sc./Ph.D. theses supervised or co-supervised (7 resulting in journal publications); 100+ B.Sc. final projects (as of 2026)
- Founder, **Software Systems Laboratory**, Department of Computer Engineering

PEER REVIEW

- **International (ISI/WoS) journals** — 25+ reviews, incl. *Knowledge-Based Systems*, *Applied Soft Computing*, *Expert Systems with Applications*, *Information Sciences*, *Engineering Applications of Artificial Intelligence*, *Neural Computing and Applications*, and *Soft Computing*
- **Iranian peer-reviewed journals** — 35+ reviews, mainly for *Tabriz Journal of Electrical Engineering*, *International Journal of Engineering*, and *Journal of AI and Data Mining*
- Reviewer of 2 book manuscripts and 1 funded research proposal

ACADEMIC SERVICE AND COMMITTEES

- Member, Working Group for Monitoring, Evaluation and Quality Assurance of Non-Governmental / Non-Profit Universities and Free Higher-Education Institutions (approx. 3 years)
- Member, Faculty Recruitment Scientific Qualification Committees, Computer Science and Computer Engineering groups (approx. 5 years)
- Member, Student Disciplinary Council (Primary), Damghan University (multiple terms, 2019 – 2024)
- Member, Green Management Strategic Council; Chair, Green Management Cultural and Educational Committee (2022 – 2024)
- Member, IT Working Group, Passive Defense Committee (2023 – 2025); Principal Member, Passive Defense Committee
- Member, University ICT Council
- Member, Health, Safety and Environment (HSE) Committee, Damghan University (two terms)
- Member, Graduate Studies Council, School of Mathematics and Computer Science
- Member, Jury Panel, Engineering Specialized Group
- Member, Research Office, Damghan University
- Organizer of student field trips and of the departmental exhibition at the University Science Night

TECHNICAL SKILLS

- **Programming:** C/C++, C#, Python, Java, Assembly
- **Data Science / ML:** NumPy, pandas, scikit-learn, PyTorch, TensorFlow, MATLAB
- **Databases:** MySQL, SQL Server
- **Web:** ASP.NET, PHP, HTML, CSS, JavaScript
- **Tools:** Git, Jupyter, VS Code, LaTeX, GAMS
- **Operating Systems:** Windows, Linux

LANGUAGES

- **Persian** — native
- **English** — professional working proficiency (MSRT 60+; TOLIMO 470)
- **Arabic** — reading proficiency

Last updated: November 23, 2026