SEYED AMIR SHEIKH AHMADI

Associate Professor

Departement of Computer Engineering, Islamic Azad University, kurdistan, Iran

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Research Interests

Social Network Analysis
Data Mining
Complex networks
Data Science
Evolutionary Computing
Algorithms

Education

Ph.D. in Computer Engineering –Software
University of Isfahan, Isfahan, Iran

M.Sc. in Computer Engineering- Software
Sharif University of Technology, Tehran, Iran.

B.Sc. in Computer Engineering- Software
University of Isfahan, Isfahan, Iran.

Publication Summary

https://scholar.google.com/citations?hl=fa&user=4CNO2RMAAAAJ

Scopus Author ID: 56328218300

iD https://orcid.org/0000-0002-0696-2900

Publications

Journals

1. Sheikhahmadi, A., Bahrami, M., & Saremi, H. (2023). Minimizing outbreak through targeted blocking for disease control: a community-based approach using super-spreader node identification. *Scientific Reports*, *13*(1), 14217.
2. Mohammadi, H., Ghaderzadeh, A., & Sheikhahmadi, A. (2023). A New Hybrid Method for Secure Data Transmission Using Watermarking based on Fuzzy Encryption in IoT. *IETE Journal of Research*, 1-22.
3. Amiri, E., Mosallanejad, A., & Sheikhahmadi, A. (2023). Copy-Move Forgery Detection Using an Equilibrium Optimization Algorithm (CMFDEOA). *Statistics, Optimization & Information Computing*, *11*(3), 677-684.
4. Golzardi, E., Sheikhahmadi, A., & Abdollahpouri, A. (2023). TRTCD: trust route prediction based on trusted community detection. *Multimedia Tools and Applications*, 1-37.

5. HamaKarim, B. R., Mohammadiani, R. P., Sheikhahmadi, A., Hamakarim, B. R., & Bahrami, M. (2023). A method based on k-shell decomposition to identify influential nodes in complex networks. *The Journal of Supercomputing*, 1-26.

6. Hosseini, B., Veisi, F., & Sheikhahmadi, A. (2023). A method based on link prediction for identifying set of super-spreaders in complex networks. *Journal of Complex Networks*, *11*(2), cnad007.

7. Sheikhahmadi, A., Veisi, F., Sheikhahmadi, A., & Mohammadimajd, S. (2022). A multi-attribute method for ranking influential nodes in complex networks. *Plos one*, *17*(11), e0278129.

8. Kazemi, A., Shiri, M. E., & Sheikhahmadi, A. (2022). Classifying brain tumor images using parallel deep learning algorithms. Computers in Biology and Medicine, 148, 105775.

9. Ebrahimi, M. M., Khamforoosh, K., Amini, M., Sheikhahmadi, A., & Khamfroush, H. (2022). Adaptive–Persistent Nonorthogonal Random Access Scheme for URLL Massive IoT Networks. IEEE Systems Journal.

10. Mohammadi, H., Ghaderzadeh, A., & Sheikh Ahmadi, A. (2022). A Novel Hybrid Medical Data Compression Using Huffman Coding and LZW in IoT. IETE Journal of Research, 1-15.

11. Sheikhahmadi, A., Sheikhahmadi, A., & Mohammadi-majd, Sh. (2022). Identify nodes with high spreader power in social networks by considering the positive and negative influence weights. Soft Computing Journal, 10.22052/scj.2022.243233.1019 .

12. Gholami, M., Sheikhahmadi, A., Khamforoosh, K., & Jalili, M. (2022). Overlapping community detection in networks based on Neutrosophic theory. *Physica A: Statistical Mechanics and its Applications*, 127359.

13. Ashkouti, F., Khamforoosh, K., Sheikhahmadi, A., & Khamfroush, H. (2022). DHkmeans-ℓdiversity: distributed hierarchical K-means for satisfaction of the ℓ-diversity privacy model using Apache Spark. *The Journal of Supercomputing*, *78*(2), 2616-2650.

14. Ghorbanzadeh, H., Sheikhahmadi, A., Jalili, M., & Sulaimany, S. (2021). A hybrid method of link prediction in directed graphs. Expert Systems with Applications, 165, 113896.

15. Ashkouti, F., & Sheikhahmadi, A. DI-Mondrian: Distributed improved Mondrian for satisfaction of the L-diversity privacy model using Apache Spark. Information Sciences, 546, 1-24.

16. Zareie, A., Sheikhahmadi, A., & Sakellariou, R. (2021). A Composite Centrality Measure for Improved Identification of Influential Users. arXiv preprint arXiv:2111.04529.

17. Rashidi, R., Khamforoosh, K., & Sheikhahmadi, A. (2021). Proposing improved meta-heuristic algorithms for clustering and separating users in the recommender systems. Electronic Commerce Research, 1-26.

18. Ashkouti, F., Khamforoosh, K., Sheikhahmadi, A., & Khamfroush, H. (2021). DHkmeans-ℓdiversity: distributed hierarchical K-means for satisfaction of the ℓ-diversity privacy model using Apache Spark. The Journal of Supercomputing, 1-35.

19. Shahgholi, T., Sheikhahmadi, A., Khamforoosh, K., & Azizi, S. (2021). LPWAN-based hybrid backhaul communication for intelligent transportation systems: architecture and performance evaluation. EURASIP Journal on Wireless Communications and Networking, 2021(1), 1-17.

20. Amiri, S., Mosallanejad, A., & Sheikhahmadi, A. (2021). Medical images fusion based on equilibrium optimization and discrete wavelet. International Journal of Nonlinear Analysis and Applications, 12(Special Issue), 1337-1354.

21. Amiri, E., Mosallanejad, A., & Sheikhahmadi, A. (2021). Copy-move forgery detection using a bat algorithm with mutation. International Journal of Nonlinear Analysis and Applications, 12(Special Issue), 1947-1955.

22. Amiri, E., Mosallanejad, A., & Sheikhahmadi, A. (2021). Copy-move forgery detection using a bat algorithm with mutation. International Journal of Nonlinear Analysis and Applications, 12(Special Issue), 1947-1955.

23. Ranjbari, P., & Sheikhahmadi, S. A. (2021). A systematic literature review of blockchain-based e-Voting. Soft Computing Journal.

24. Kazemi, A., Shiri, M. E., Sheikhahmadi, A., & Khodamoradi, M. (2021). A new parallel deep learning algorithm for breast cancer classification. International Journal of Nonlinear Analysis and Applications, 12(Special Issue), 1269-1282.

25. Zareie, A., Sheikhahmadi, A., & Jalili, M. (2020). Identification of influential users in social network using gray wolf optimization algorithm. Expert Systems with Applications, 142, 112971.

26. Sheikhahmadi, A., & Zareie, A. (2020). Identifying influential spreaders using multi-objective artificial bee colony optimization. *Applied Soft Computing*, 106436.
27. Zareie, A., Sheikhahmadi, A., Jalili, M., & Fasaei, M. S. K. (2020). Finding influential nodes in social networks based on neighborhood correlation coefficient. *Knowledge-Based Systems*, 105580.
28. Rashidi, R., Khamforoosh, K., & Sheikhahmadi, A. (2020). An analytic approach to separate users by introducing new combinations of initial centers of clustering. *Physica A: Statistical Mechanics and its Applications*, 124185.
29. Zareie, A., Sheikhahmadi, A., & Jalili, M. (2019). Influential node ranking in social networks based on neighborhood diversity. *Future Generation Computer Systems*, *94*, 120-129.
30. Zareie, A., Sheikhahmadi, A., & Jalili, M. (2019). Identification of influential users in social networks based on users' interest. *Information Sciences*, *493*, 217-231.
31. Zareie, A., & Sheikhahmadi, A. (2019). EHC: Extended H-index Centrality measure for identification of users' spreading influence in complex networks. *Physica A: Statistical Mechanics and Its Applications*, *514*, 141-155.
32. Golzardi, E., Sheikhahmadi, A., & Abdollahpouri, A. (2019). Detection of trust links on social networks using dynamic features. *Physica A: Statistical Mechanics and its Applications*, *527*, 121269.
33. Najafi, F., Irandoost, M., Soltanpanah, H., & Sheikhahmadi, A. (2019). A Model for relationship management with fintech and financial startups in banking industry.
34. Zareie, A., Sheikhahmadi, A., & Khamforoosh, K. (2018). Influence maximization in social networks based on TOPSIS. *Expert Systems with Applications*, *108*, 96-107.
35. Zareie, A., &Sheikhahmadi, A. (2018). A hierarchical approach for influential node ranking in complex social networks. Expert Systems with Applications, 93, 200-211.
36. Forouzandeh, S., Sheikhahmadi, A., Aghdam, A. R., & Xu, S. (2018). New centrality measure for nodes based on user social status and behavior on Facebook. *International Journal of Web Information Systems*.
37. Sheikhahmadi, A., Nematbakhsh, M. A., &Zareie, A. (2017). Identification of influential users by neighbors in online social networks. Physica A: Statistical Mechanics and its Applications, 486, 517-534.
38. Zareie, A., Sheikhahmadi, A., &Fatemi, A. (2017). Influential nodes ranking in complex networks: An entropy-based approach. Chaos, Solitons & Fractals, 104, 485-494.
39. Sheikhahmadi, A., &Nematbakhsh, M. A. (2017). Identification of multi-spreader users in social networks for viral marketing. Journal of Information Science, 43(3), 412-423.
40. Sheikhahmadi, A., Nematbakhsh, M. A., &Shokrollahi, A. (2015). Improving detection of influential nodes in complex networks. Physica A: Statistical Mechanics and its Applications, 436, 833-845.
41. Hosseini, A., & Sheikh-Ahmadi, A. (2015). Predicting Fault in the Process of Producing Important Android Applications using Data Mining Techniques. International Journal of Computer Applications, 131(13).
42. Forouzandeh, S., Soltanpanah, H., &Sheikhahmadi, A. (2015). Application of Data Mining in Designing a Recommender System on Social Networks. International Journal of Computer Applications, 124(1).
43. Forouzandeh, S., Soltanpanah, H., &Sheikhahmadi, A. (2014). Content marketing through data mining on Facebook social network. Webology, 11(1), 1.
44. Ahmadi, F., Sheikhahmadi, A., Tati, R., & Ahmadi, S. (2011). New Approach to Standard Genetic Algorithm. International Journal of Computer Applications, 32(10).

Conferences

1. Khamforoosh, K., Rahmani, A. M., & Ahmadi, A. S. (2008, March). A new multi-path AODV routing based on distance of nodes from the network center. In *Communications, Propagation and Electronics, 2008. MIC-CPE 2008. 2008 Mosharaka International Conference on* (pp. 1-5). IEEE.
2. Asadi, J., & Sheikhahmadi, A. (2017). Optimizing similarity graph in spectral clustering using Ncut and RatioCut based on Genetic Algorithm, 4th International conference on Electrical and Computer Engineering, Tehran, Iran.
3. Azadi Marand, E., Sheikhahmadi, A. (2018). Reader and Writer problem on Domain- specific Modelling Language for Concurrent Programming (DSML4CP), 5th International conference on Electrical and Computer Engineering, Allameh Tabatabai University, Iran.

4. Tabakhi, S., Sheikhahmadi, A. (2016). A new feature selection method using Imperialist Competitive Algorithm in the filter approach, 4th International conference on Applied research in Computer Engineering and Signal Processing, Tehran, Iran.
5. Tabakhi, S., Sheikhahmadi, A. (2016). Using Imperialist Competitive Algorithm for feature selection with consideration of the similarity between features, 4th International conference on Applied research in Computer Engineering and Signal Processing, Tehran, Iran.
6. Behfar, N., Sheikhahmadi, A., Zaheri, F, (2016). Artificial Neural Network Algorithm with monarch Butterfly, 4th International conference on Applied research in Computer Engineering and Signal Processing, Tehran, Iran.
7. Sheikhahmadi, A, (2018), Observing the effect of word of mouth in social media on customer household seller's purchase intention of sanandaj, International conference on Management, Economics & Entrepreneurship, Switzerland- Lausanne.
8. Asadi, J., & Sheikhahmadi, A. (2017). Modified Particle Swarm Optimization, 4th International conference on Electrical and Computer Engineering, Tehran, Iran.
9. Sheikhahmadi, A, (2017), An approach to improve accuracy of recommender systems based on collaborative filtering methods, 6th International conference on sciences and Engineering, Paris- France.
10. Yegane, S., Sheikhahmadi, A. (2018). A survey on the recommender systems algorithms in social networks and their challenges, 5th International conference on Electrical and Computer Engineering, Allameh Tabatabai University, Iran.
11. Brakhasi, B, Sheikhahmadi, A. (2022). A multi-index to predict link in complex networks, 6th International conference on researches in science & Engineering, Kasem Bundit University, Bangkok.
12. Samadi, L., Sheikhahmadi, A. (2022). Investigation of Compressive Strength of Concrete Through an Artificial Intelligence Networks, 5th National Conference on Information Technology and Artificial Intelligence Applications, Ahvaz, Iran.

National papers
- More than 60 national Conferences Papers (in Persian).

Book
- Kayvan Zare, Amir Sheikhahmadi, "Data Structures", 2nd Edition, Qom publisher, 2015.
- Ghasem Mohammadi, Keyhan Khamforoosh, Amir Sheikhahmadi," Introduction to Cloud Computing", 1st Edition, Gottar publisher, 2019.

Teaching Experiences

2007-Present – Lecturer, Islamic Azad University, Faculty of Eng Dept. of Computer Eng, Sanandaj, Iran.

20016-2017- Lecturer, University of Isfahan, Faculty of Eng Dept. of Computer Eng, Isfahan, Iran.

2002-2016- Lecturer, University of Applied Science, Faculty of Eng Dept. of Computer Eng, Sanandaj, Iran.

2013-2014- Lecturer, University of Kurdistan, Faculty of Eng Dept. of Computer Eng, Sanandaj, Iran.

Undergraduate (Compute Engineering)   Graduate (Software Engineering)

- Data Structures
- Design Algorithms
- Operating Systems
- Introduction to Programming
- Advanced Programming
- Computer Fundamentals

- Data Mining
- Social Network Analysis
- Data Science
- Machine Learning
- Evolutionary Computing
- Advanced Algorithms
- Research Methods

Computer Skills

Programming languages: C¸ C++¸ Visual Basic, Visual C++, Visual C#, Python**,** Matlab, HTML, FrontPage, Dream weaver, CSS, Django

Software: Multimedia Builder, Endnote, Word¸ Excel¸ Power point¸ Latex¸ Access, mendely

Database : MySQL, MS-SQL Server

Operating Systems: Microsoft Windows OS, Apple Macintosh OSX

Work Experiences

Islamic Azad University of Sannadaj   2007- Present
Faculty Member Dep. Of Computer Eng.

Islamic Azad University of Sannadaj   2011- Present
Head of Computer Eng Dept.

Knowledge-Based Zhoorimaang Company   2015-2019
Data Scientist and Consultant

Knowledge-Based Westo Company   2018-Present
Member of the Board of Directors

Islamic Azad University of Sannadaj   2020- Present
Director of IT and e-learning Dept.

Professional Activities

Competitions:
- Member of the technical committee of the 3rd open robotics competition, Azad University,11-12 March 2014.
- Head of the simulation league, 4th open robotics competition, 4-5 March 2015.

Conference:
- Keynote speaker, National Data mining and its applications, 24 Feb,209.
- Member of the scientific committee, 1st National conference on computer science, 27 Nov 2012.
- Member of the scientific committee, 2nd National conference on computer science, 27 Nov 2013.

- Member of the scientific committee, 3rd National conference on computer science, 29 and 30 April 2015.
- the fourth national computer and information technology conference with the approach of new business development
- IKT 2017

Journal Reviewer:
- Physica A: Statistical Mechanics and its Applications
- Computing in Science and Engineering
- Expert Systems with Applications
- Information Sciences
- Reliability Engineering and System Safety
- Int. J. of Information Technology and Decision Making
- International Journal of Automation and Computing
- Physics Letter A
- International Journal of Soft Computing and Information Technology
- IEEE Transactions on Cybernetics
- Transactions on Knowledge Discovery from Data
- Journal of Supercomputing
- Sustainable city and society
- Substance Use and Misuse
- IEEE Access

Awards and Honors

Dean's award for research performance – Islamic Azad University	2017
Dean's award for research performance – Islamic Azad University	2018
Dean's award for research performance – Islamic Azad University	2019
Dean's award for research performance – Islamic Azad University	2020
Dean's award for research performance – Islamic Azad University	2021

Graduate students

PhD students (as main supervisor):
- Ahmad Zareie   (2016 - 2020)
- Elaheh Golzardi (2016 - 2021)
- Hossien Ghorbanzadeh (2017 - 2021)
- Maryam Gholami (2017- 2022)
- Adib Sheikhahmadi (2017 - 2022)
- Taghi Shahgoli (2018 - 2022)
- Elaheh Azadi Marand (2018-2022)

MSc students (with research thesis):

- Adib Sheikhahmadi
- Farshid Veisi
- Mehri Bahrami
- Keyvan Zarei
- Bayan Hosseini

- Ahmad Namani
- Farzad Namani
- Sirvan Sheikhahmadi
- Reza Veisi
- Mohammad Fallah

- Nilofar Behfar
- Sonia Tabakhi
- Rozhin Ahmadi
- Hiwa Nazari
- Khabat Attar Abdullah
- Werya Salih
- Twana Naseh
- Aram Kamal Tufiq
- Bayan Brakhasi
- Hevar Sirwan Hassan
- Solmaz Tahajomi
- Kasra Ghavami
- Soran Mohammad Taha
- Somayeh Alikhani
- Hooman Bordbar
- Janat Abdulmaleki
- Sajad Amini
- Sheida Shahsavari
- Afshin Rahmani
- Payam Ranjbari
- Jalil Asadi
- Parisa Golanbari
- Payman Bahrami
- …

Languages

Kurdish (Native)
Persian (Native fluency)
English (TOEFL IBT 104)

References

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Dr Mahdi Jalili, RMIT University, Melbourne, Australia | Phone: (0061 3 99251223)
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Dr Hana Khamfroush, Computer Science Department, University of Kentucky
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