Sahar Kianian

I am an assistant professor of computer science at Shahid Rajaee university. My research interests is the application of algorithms, machine learning and data science in complex networks, focuses on protein interactions, relation among people and connection between smart objects. Applications include disease prediction, drug discovery, event detection and tracking, recommendation system and social influence mining.

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Education

PH.D.   2010 — 2016
Isfahan University

Artificial Intelligence
Thesis: Semantic community detection in dynamic social networks
Supervisor: Dr. Naser Movahedinia, Dr. M.R. Khayyambashi

Master of Science   2007 — 2010
Isfahan University

Artificial Intelligence
Thesis: Content based Routing for Mobile ad-hoc Networks
Supervisor: Dr. Naser Movahedinia, Dr. Naser Ghasemaghaee

Bachelor of Science   2002 — 2007
Razi university

Computer engineering
Thesis: Transistor level SEU fault modeling using fuzzy logic
Supervisor: Dr. Amir Rajabzade

High School Diploma   1998 — 2002
Farzanegan-Sampad

Publications

Published:

- S. Kianian and M. Rostamnia, "An efficient path-based approach for influence maximization in social

networks," *Expert Systems with Applications,* vol. 167, p. 114168, 2021.

- S. Mirmousavi and S. Kianian, "Link Prediction using Network Embedding based on Global Similarity," *Journal of Electrical and Computer Engineering Innovations (JECEI),* vol. 8, pp. 97-108, 2020.

- Y. Rohani, Z. Torabi, and S. Kianian, "A novel hybrid genetic algorithm to predict students' academic performance," *Journal of Electrical and Computer Engineering Innovations (JECEI),* vol. 8, pp. 219-232, 2020.

- Z. Aghaee, H. A. Beni, S. Kianian, and M. Vahidipour, "A Heuristic Algorithm Focusing on the Rich-Club Phenomenon for the Influence Maximization Problem in Social Networks," in *2020 6th International Conference on Web Research (ICWR)*, 2020, pp. 119-125.

- Z. Aghaee and S. Kianian, "Efficient influence spread estimation for influence maximization," *Social Network Analysis and Mining,* vol. 10, pp. 1-21, 2020.

- Z. Aghaee and S. Kianian, "Influence maximization algorithm based on reducing search space in the social networks," *SN Applied Sciences,* vol. 2, pp. 1-14, 2020.

- S. Kianian and S. Farzi, "Assessment of Customer Credit Risk using an Adaptive Neuro-Fuzzy System," *Computer and Knowledge Engineering,* vol. 2, pp. 19-28, 2020.

- S. Kianian, S. Farzi, and H. Samak, "A New Clustering Algorithm for Attributive Graphs through Information Diffusion Approaches," *Journal of Electrical and Computer Engineering Innovations (JECEI),* vol. 8, pp. 273-284, 2020.

- M. Rostamnia and S. Kianian, "Vertex cover preprocessing for influence maximization algorithms," in *2019 5th Conference on Knowledge Based Engineering and Innovation (KBEI)*, pp. 338-342.

- S. Farzi and S. Kianian, "Katibeh: A Persian news summarizer using the novel semi-supervised approach," *Digital Scholarship in the Humanities,* vol. 34, pp. 277-289, 2019.

- S. Farzi, H. Faili, and S. Kianian, "A preordering model based on phrasal dependency tree," *Digital Scholarship in the Humanities,* vol. 33, pp. 748-765, 2018.

- S. Farzi, H. Faili, and S. Kianian, "A neural reordering model based on phrasal dependency tree for statistical machine translation," *Intelligent Data Analysis,* vol. 22, pp. 1163-1183, 2018.

- S. Farzi and S. Kianian, "A novel clustering algorithm for attributed graphs based on K-medoid algorithm," *Journal of Experimental & Theoretical Artificial Intelligence,* vol. 30, pp. 795-809, 2018.

- S. Farzi, S. Kianian, and I. Rastkhadive, "Diagnosis of attention deficit hyperactivity disorder using deep belief network based on greedy approach," in *2017 5th International Symposium on Computational and Business Intelligence (ISCBI)*, 2017, pp. 96-99.

- S. Farzi, S. Kianian, and I. Rastkhadive, "Predicting serious diabetic complications using hidden pattern detection," in *2017 IEEE 4th International Conference on Knowledge-Based Engineering and Innovation (KBEI)*, 2017, pp. 0063-0068.

- S. Kianian, M. R. Khayyambashi, and N. Movahhedinia, "FuSeO: Fuzzy semantic overlapping community detection," *Journal of Intelligent & Fuzzy Systems,* vol. 32, pp. 3987-3998, 2017.

- S. Kianian, M. R. Khayyambashi, and N. Movahhedinia, "Semantic community detection using label propagation algorithm," *Journal of Information Science,* vol. 42, pp. 166-178, 2016.

- S. Kianian, N. Movahedinia, N. G. Aghaee, and F. Dehghani, "An Intelligent Content-Based Routing for Multimedia Mobile Ad Hoc Networks," in *2010 Second International Conference on Multimedia and Information Technology*, 2010, pp. 142-145.

- F. Dehghani, N. Movahhedinia, M. R. Khayyambashi, and S. Kianian, "Real-time traffic classification based on statistical and payload content features," in *2010 2nd international workshop on intelligent systems and applications*, 2010, pp. 1-4.

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Submitted:

- S. Kianian and M. Rostamnia," A Hybrid genetic algorithm for influence maximization in social networks using random walk ranking"

- Zeinab Torabi; Sahar Kianian; Yaser Rohani, "Grade prediction and failure prevention: an application of super efficiency intelligent techniques in educational data mining"

- M. Barzegar, S. Kianian, M. Safkhani, "User recommendation system based on collaborative filtering in SIOT

Interests

Social Network Analysis
Social Internet of things
Information Networks
Biological Networks
Artificial Intelligence
Machine Learning
Educational Data Mining

Teaching

Complex Network Analysis
Algorithm Design
Artificial Intelligence
Theory of language and automata
Data structures

Honors

Academic First rank in Master of Science (2010)
Academic Second rank in PH.D (2016)

Skills

Programming Language Skills:
Structured programming languages: C, C++, C#, Java
Nonprocedural Languages: SQL, SPARQL
Artificial Intelligence languages: Lisp, Prolog, Python

Research Skills:
Critical thinking
Data collection
Observation
Planning and scheduling
Detail oriented

Interpersonal Skills:
Analytical Skills
Good Team Player
Problem Solving
Time Management

References

- Dr. Naser Movahedinia: Professor, Faculty of Computer Engineering, Isfahan university, Isfahan, Iran.
  Email: nmovahedinia@gmail.com

- Dr. M.R. Khayyambashi: Associate Professor, Faculty of Computer Engineering, Isfahan university, Isfahan, Iran.
  Email: Khayyam.mr@gmail.com

- Dr. Amir hassan Monadjemi: Senior Lecturer, School of Computing , National University of Singapore, Singapore
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- Dr. A. Rajabzade: Asistant Professor, Faculty of Computer Engineering, Razi university, Kermanshah, Iran
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