

Farid GharehMohammadi

CONTACT INFORMATION	415 Boyd Graduate Studies Research Center, Department of Computer Science, University of Georgia	<i>E-mail:</i> farid.ghm@uga.edu LinkedIn — Google Scholar Citations
RESEARCH INTERESTS	<ul style="list-style-type: none">• Software Engineering: Software analysis, Software designing, Software programming.• Machine Learning and Optimization: Evolutionary and Meta-Heuristic algorithms, Meta-learning, Deep Learning, Data Mining, Transfer learning, K-shot learning, Zero-shot learning.• Computer Vision and Image Processing: deep learning based image Segmentation, Steganography, steganalysis, other image processing topics (Image Segmentation, Object Detection, etc)	
EDUCATION	Ph.D in Computer Science at The University of Georgia, USA , current GPA 4.0/4.0. Dec. 2022 M.Sc in Computer Engineering - Software at Tarbiat Modares University, Iran Nov. 2013 B.S. in Computer Engineering (Software) at Payam Noor University, Iran. Jul. 2010	
TECHNICAL EXPERIENCE	<ul style="list-style-type: none">• 4+ years individual machine learning and image processing experiences: Few-shot learning, zero-shot learning, Strong edge detector skills, skilled at detecting stego images, applying morphological operators and image segmentation,• 8+ years individual programming experiences: Strong designing, analyzing, developing and interpersonal skills, skilled at handling multiple tasks, problem solver• 4+ years industry experiences: Excellent professional collaboration with team members• 1+ year a leader of the development team: United the team members and worked together productively, Extreme ability to create a dynamic enterprise system	
SKILLS	Programming Languages and Data Mining Software: C#, Java, Java EE, Python, R, Weka, RapidMiner. Database Management Systems: NO SQL (MongoDB & Mongoengine), Oracle, DB2, Microsoft SQL Server and Express, MySQL. Other App: MATLAB, L ^A T _E X, Microsoft Office, Eclipse, NetBeans, NoteBook Jupyter, Spyder.	
HONORS AND AWARDS	<ul style="list-style-type: none">• Travel grant for presenting a research work at CSCI'20, Las Vegas, USA, Awarded by Georgia Oral and Facial Reconstructive Surgery December 2020• Ranked Top eight team proposal for International Auto-checkout Competition March 2020 (Supported by AiFi Carnegie Mellon University)• The POOIA Student Scholarship Award in recognition of sustained record of academic excellence 2019• Outstanding Achievement Awards in recognition and appreciation of research and application to the field of Deep learning at CSCI'19 , Las Vegas December 2019• Travel grant for presenting a research work at CSCI'19, Las Vegas, USA, Awarded by University of Gerogia December 2019• Travel grant for presenting a research work ACM Buildsys 2019 Workshop, NY, USA. Awarded by AiFi-AI [Acceptance rate is 21%] November 2019• The 2019 POOIA Outstanding Achievement Award in recognition of sustained record of academic excellence 2019• Outstanding Reviewer in Journal of Visual Communication and Image Representation 2017• Ranked 141th Among about 26000 participants in the Nationwide University Entrance Exams for M.Sc. Degree.top 0.05 in Iran 2011• First Prize in Mianeh city Mathematic Competition 2004 -Ranked 1st among all competitors over Mianeh city, East Azerbaijan Province, Iran.	
INVITED TALKS	Guest Lecturer , Sep 8-10th, Sep 28-30th, Dec 2,3 2020, Started to give a series of talk on Data Mining and its application on fraudulent transactions detection at Department of Computer Science, University of Georgia, GA. USA. Guest Lecturer , Sep 12th, 2019, Recent advances in evolutionary computation at Department of Computer Science, University of Georgia, GA. USA. Guest Lecturer , Oct 1st, 2019, the application of evolutionary computation to advanced image processing at Department of Computer Science, University of Georgia, GA. USA.	
RESEARCH, TEACHING EXPERIENCE	Research Assistant @ UGA	Sep. 2018 to Now

- Developed Advanced machine learning and Meta-learning [8][9][13][14][15] Summer. 2019-Present
 - Studied infectious diseases data and application of Machine learning. Summer. 2019-Present
 - Investigated on image steganalysis using artificial bee colony. [1] Spring. 2019
 - Worked on Vision-based Hull Measurements for Automated Peanut Maturity Estimation[2][10] Fall. 2018
- Research Assistant** @ University of Tehran Sep. 2015 to April. 2017
- Developed a new method called RISAB, Region based Image Steganalysis using Artificial Bee colony.[4]
- Research Assistant** @ Tarbiat Modares University Sep. 2011 to Nov. 2013
- Developed an Image steganalysis using Artificial bee colony.[5][6][7][11][15]
- Teaching Assistant**
- Teaching Assistant @ UGA. Spring 2018 - Fall 2019
 - Lecturer @ UGA. Spring.2020

PROFESSIONAL
SERVICE

Conference Chair

- *Online zoom sessions Chair and Co-chair at CSCI'20, Las Vegas, USA* December 16-17 2020
- *Online zoom sessions Chair and Co-chair at CSCE'20, Las Vegas, USA* July 27-28 2020
- *Chair at Symposium on signal image processing, computer vision pattern recognition (CSCI-ISPC) + symposium on artificial intelligence (CSCI-ISAI) at CSCI'19, Las Vegas, USA* December 6 2019

Reviewer

- *IEEE Internet of Things Journal* 2020
- *Frontiers in Communications and Networks* 2020
- *International Workshop on Federated Learning for User Privacy and Data Confidentiality in Conjunction with ICML 2020 (FL-ICML'20)* 2020
- *International Conference on Smart Energy Systems and Technologies (SEST) 2020* 2020
- *International Transactions on Electrical Energy Systems* 2020
- *The Journal of Supercomputing* 2019
- *IEEE Signal Processing Letters* 2018, 2019
- *Journal of Visual Communication and Image Representation* 2017, 2018
- *Journal of Electronic Imaging* 2016, 2018
- *Advances in Chemical Engineering and Science* 2018
- *Security And Communication Networks* 2014
- *IEEE Systems Journal* 2013

JOURNAL PAPERS

- [1] Zhao Zhuo, Boland Brian, **Farid Ghareh Mohammadi**, Monfort Walter, Johnsen Kyle, Tse Zion, Leo Donald, "A Smartphone application for assessing peanut maturity", American Society of Agricultural and Biological Engineers, (2020).
- [2] Pouriye, Seyedamin, Mehdi Allahyari, Qingxia Liu, Gong Cheng, Hamid Reza Arabnia, Maurizio Atzori, **Farid Ghareh Mohammadi**, and Krys Kochut. "Ontology Summarization: Graph-Based Methods and Beyond." International Journal of Semantic Computing 13, no. 02. pp. 259-283, 2019.
- [3] **Farid Ghareh Mohammadi**, and Hedieh Sajedi, "Region based Image Steganalysis using Artificial Bee colony", Journal of Visual Communication and Image Representation, vol. 44, pp. 214-226, April 2017. doi:10.1016/j.jvcir.2016.12.003
- [4] **Farid Ghareh Mohammadi**, and Mohammad Saniee Abadeh, "Image Steganalysis Using a Bee Colony Based Feature Selection Algorithm", Engineering applications of artificial intelligence vol. 31, pp. 35-43, May 2014. doi:10.1016/j.engappai.2013.09.016
- [5] **Farid Ghareh Mohammadi**, and Mohammad Saniee Abadeh, "A new metaheuristic feature subset selection approach for image steganalysis", Journal of Intelligent and Fuzzy Systems, vol. 27, no. 3, pp. 1445-1455, 2014. doi:10.3233/IFS-131111
- [6] Danial Jalalnouri, Mohammad Saniee Abadeh, **Farid Ghareh Mohammadi**, "HYEI: A novel Hybridization algorithm of Evolutionary fuzzy systems and Imperialist competitive algorithm for fuzzy model generation", Advances in fuzzy system, pp. 1687-7101, 2014. doi:10.1155/2014/970541

- [7] **Farid GharehMohammadi**, Farzan Shenavarmasouleh, M. Hadi Amini and Hamid R. Arabnia. "Evolutionary algorithms and Efficient Data Analytics for Image Processing", *International Conference on Ubiquitous Information Management and Communication, IMCOM'21* South Korea (Jan 4-6. 2021).
- [8] **Farid GharehMohammadi**, Farzan Shenavarmasouleh, M. Hadi Amini and Hamid R. Arabnia."Impact of Weather Conditions on the COVID-19 Pandemic in the United States : A big data approach", *The 2020 International Conference on Computational Science and Computational Intelligence (CSCI'20)* (Dec. 16-18 2020).
- [9] Farzan Shenavarmasouleh, **Farid GharehMohammadi**, M. Hadi Amini and Hamid R. Arabnia. "DRDr II: Detecting the Severity Level of Diabetic Retinopathy Using Mask RCNN and Transfer Learning", *The 2020 International Conference on Computational Science and Computational Intelligence (CSCI'20)* (Dec. 5-7 2020).
- [10] **Farid GharehMohammadi**, Farzan Shenavarmasouleh, M. Hadi Amini and Hamid R. Arabnia." Malware detection using artificial bee colony algorithm", *Adjunct Proceedings of the 2020 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2020 ACM International Symposium on Wearable Computers (UbiComp-CPD 2020)* (Sep. 12- 17 2020).
- [11] **Farid GharehMohammadi**, Ahmed Imteaj, M. Hadi Amini and Hamid R. Arabnia." ", *The 2020 World Congress in Computer Science, Computer Engineering Applied Computing (CSCE'20)* (July 27- 30, 2020)
- [12] Ehsan Asali, Farzan Shenavarmasouleh, **Farid GharehMohammadi**, Prasanth Sengadu Suresh and Hamid R. Arabnia."Deepmsrf: A novel deep multimodal speaker recognition framework with feature selection", *The 2020 World Congress in Computer Science, Computer Engineering Applied Computing (CSCE'20)* (July 27- 30, 2020).
- [13] **Farid GharehMohammadi** and M Hadi Amini, and Hamid R. Arabnia "On Parameter Tuning in Meta-learning for Computer Vision", *The 2019 International Conference on Computational Science and Computational Intelligence* , Las Vegas, Nevada, USA.(2019) [Acceptance rate is 17%]
- [14] **Farid GharehMohammadi** and M Hadi Amini, " Promises of Meta-Learning for Device-Free Human Sensing: Learn to Sense", 1st ACM Workshop on Device-Free Human Sensing (A ACM Buildsys 2019Workshop),In *Proceedings of the 1st ACM International Workshop on Device-Free Human Sensing (DFHS'19)*. ACM, New York, NY, USA, 44-47.(2019) doi:10.1145/3360773.3360884
- [15] **Farid GharehMohammadi**, Boland B, Zhao Z, Tse Z, Leo D and Johnsen K, " Vision-based Hull Measurements for automated Peanut Maturity Estimation", 2018 Workshop on Advancing Informatics in Government and Engineering. 30 Nov 2018.
- [16] **Farid GharehMohammadi**, and Mohammad Saniee Abadeh, "An improved image steganalysis using a novel feature selection algorithm based on artificial bee colony", *Intelligent Systems and Decision Making for Risk Analysis and Crisis Response: Proceedings of the 4th International Conference on Risk Analysis and Crisis Response*, Istanbul, Turkey, pp. 593-598, 27-29 August 2013. doi: 10.1201/b16038-84
- BOOK CHAPTERS [17] **Farid GharehMohammadi**, M Hadi Amini, and Hamid R. Arabnia. " Evolutionary computation, optimization and learning algorithms for data science.", arXiv preprint arXiv:1908.08006, (2019) *accepted to be a bookchapter in Springer*.
- [18] **Farid GharehMohammadi**, M Hadi Amini, and Hamid R. Arabnia. " Applications of nature-inspired algorithms for dimension Reduction: Enabling efficient data analytics." arXiv preprint arXiv: 1908.08563, (2019) *accepted to be a bookchapter in Springer*.
- [19] **Farid GharehMohammadi**, M Hadi Amini, and Hamid R. Arabnia. "An Introduction to Advanced Machine Learning : Meta Learning Algorithms, Applications and Promises." arXiv preprint arXiv: 1908.09788, (2019) *accepted to be a bookchapter in Springer*.
- [20] **Farid GharehMohammadi**, Mohammad Saniee Abadeh "A Survey of Data Mining Techniques for Steganalysis", *Recent Advances in Steganography*, ISBN: 978-953-51-0840-5, InTech, pp. 1-22, 2012. doi:10.5772/53989

PROFESSIONAL
EXPERIENCE

NGeorgia Oral and Facial Reconstructive Surgery ,Atlanta, GA

May. 2020 to present

Research and development Internship

Navaco Information Technology Company ,Tehran, Iran

Oct. 2016 to Nov. 2017

Lending sub-system, Software Designer and Senior Java EE Developer

- *Designed and developed Lending sub-system*

Yaas Arghavani System Engineering Company Tehran, Iran

Oct. 2014 to Sep. 2016

Debt Management System, Software Designer and Senior Java EE Developer

- **Leading Team:** *Collaborated with 6 other teammates, solved their implementation problem and Developed 30+ Web-services*

Online Loan Management System (TAAM), Senior Java EE developer

- **Problem Solver:** Maintained TAAM system and solved majority of un-handled problems in the shortest time in a technical innovative , and dynamic way

Rayan Eghtesad Novin Company , Tehran, Iran

Feb. 2014 to Sep. 2014

Analyzer and system designer