Farid GharehMohammadi

CONTACT INFORMATION	**Department of Computer Science, University of Georgia**	*E-mail:* farid.ghm@uga.edu
		LinkedIn — Google Scholar Citations

RESEARCH INTERESTS

- **Computer Vision and Image Processing:** Low shot learning, deep learning based image Segmentation, deep-learning based image editing and generation, data-driven artistic content creation, other image processing topics (Image Segmentation, Object Detection, etc)
- **Machine Learning and Optimization:** Evolutionary and Meta-Heuristic algorithms, Deep Learning, Data Mining topics (Pre-analysis algorithms, Classification and Clustering, Prediction and Rule Extraction, Visualization, etc).
- **Software Engineering:** Software analysis, Software designing, Software programming.

EDUCATION

The University of Georgia, USA: Ph.D in Computer Science, GPA 4.0/4.0.	Dec. 2022
Tarbiat Modares University, Iran: M.Sc in Computer Engineering - Software.	Nov. 2013
Payam Noor University, Iran: B.S. in Computer Engineering - Software.	Jul. 2010

TECHNICAL EXPERIENCE

- **2+ years individual image processing experiences**: 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**: Having a 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

Software Engineering Methodologies: RUP, Agile, Waterfall, Scrum.
Software Engineering Tools: IBM Rational Software Architect, Enterprise Architect, Jira, Wiki, Axure
Programming Languages: C, C++, C#, Java, Java EE, Python.
Data Mining Software: Weka, RapidMiner.
Professional Packages / libraries, but not limited to: Panda, Numpy, Scikit, OpenCV.
Database Management Systems: Oracle, DB2, Microsoft SQL Server and Express, MySQL.
Web Technologies: Spring, Hibernate, Html, Xhtml, JSF, Java script, Web Service. JAX-WS.
OS: Windows Family, Linux.
Other App: MATLAB, LaTeX, Microsoft Office, Idea, Eclipse, NetBeans, NoteBook Jupiter, Spyder.

HONORS AND AWARDS

- **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
- Most downloaded chapter in the book entitled "Recent Advances in Steganography"
- Ranked **141th** Among about 26000 participants in the Nationwide University Entrance Exams for M.Sc. Degree.top 0.05   2011
- First Prize in Mianeh city Mathematic Competition   2004
  -Ranked **1st** among all competitors over Mianeh city, East Azerbaijan Province, Iran

RESEARCH, TEACHING EXPERIENCE

Research Assistant, @ UGA   Sep. 2018 to Now
- Worked on image steganalysis using artificial bee colony.
- Worked on Vision-based Hull Measurements for Automated Peanut Maturity Estimation, Funding from the Georgia Peanut Commission, [5]
- Mentor: Hamid R. Arabnia, Kyle Johnsen

Research Assistant , @ Universiry of Tehran   Sep. 2015 to april. 2017
- Customized a new version of Artificial Bee colony and applied on special domain to seek for the optimal sub-image that carries the hidden messages. I proposed a new method called RISAB, Region based Image Steganalysis using Artificial Bee colony.[1]
- Mentor: Hedieh Sajedi

Research Assistant , @ Tarbiat Modares Universiry   Sep. 2011 to Nov. 2013
- Worked on Image steganalysis using Artificial bee colony to detect Stego images from cover ones.[2][3][4][6][7]
- Mentors: Mohammad Saniee Abadeh, Nasrollah Moghadam Charkari

Teaching Assistant

• Discrete Mathematics, Head TA. , @ UGA.	Spring. 2019
• System Development (C / C++ in linux) , Head TA. , @ UGA.	Fall. 2018
• Software Development (Java in linux), @ UGA	Summer. 2018
• Discrete Mathematics, @ UGA.	Spring. 2018
• Data Mining @ Tarbiat Modares Universiry.	Spring. 2013

PROFESSIONAL SERVICE

Reviewer

• *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
• *Security And Communication Networks*	2014
• *IEEE Systems Journal*	2013

SELECTED JOURNAL PAPERS

[1] **Farid GharehMohammadi**, 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

[2] **Farid GharehMohammadi**, 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

[3] **Farid GharehMohammadi**, 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

[4] Danial Jalalnouri, Mohammad Saniee Abadeh, **Farid GharehMohammadi**," 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

CONFERENCE PUBLICATIONS

[5] **Farid GharehMohammadi**, Boland B, Zhao Z, Tse T, Leo D and Johnsen K, " Vision-based Hull Measurements for automated Peanut Maturity Estimation", 2018 Workshop om Advancing Informatics in Government and Engineering. 30 Nov 2018.

[6] **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

[7] **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

Navaco Information Technology Company ,Tehran, Iran   Oct. 2016 to Nov. 2017

Core Banking, Software Designer and Senior Java EE Developer

- *Designed and developed Lending sub-system*
- *Designed and developed Letter of Credit (LC) sub-system*
- *Worked with Oracle and Java 2EE (Hibernate, Spring), Wiki, Axure.*

Yaas Arghavani System Engineering Company Tehran, Iran   Oct. 2014 to Sep. 2016

Debt Management System, Software Designer and Senior Java 2EE DÙŘÙŘeveloper

- **Leading Team:** *working with 6 other teammates and solving thier implementation problem*
- *Developed Web-services for Mellat Bank: 30+ web-services are implented to fetch Bank customers information*
- *Worked with DB2, Java EE (Hibernate, Spring, JSF,JAX-WS)*

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
- *Worked with DB2, Java EE(Hibernate, Spring, Struts, BP)*

Rayan Eghtesad Novin Company , Tehran, Iran   Feb. 2014 to Sep. 2014

Core Banking, Software Designer

- *Designed ACH sub-System with Enterprise Architecture (EA)*
- *Worked with WIKI, Microsoft Office Word, Eclipse*
- *Technologies :Hibernate, Spring, EJB, BPMN*