



Fatemah Hamdan Alghamedy

Assistant Professor

Personal Data

Nationality | Saudi

Date of Birth | 31/03/1985

Department | Computer

Official Email | falghamedy@iau.edu.sa

Office Phone No. | N/A

Language Proficiency

Language	Read	Write	Speak
Arabic	Yes	Yes	Yes
English	Yes	Yes	Yes
Others	--	--	--

Academic Qualifications (Beginning with the most recent)

Date	Academic Degree	Place of Issue	Address
2019	Ph.D. degree in Computer Science	USA	University of Kentucky
2012	Master degree in Computer Science	USA	Arkansas State University
2006	Bachelor in Computer Science	Saudi Arabia	Science College for Girls - Damman

PhD, Master or Fellowship Research Title: (Academic Honors or Distinctions)

PhD	Enhance NMF-Based Recommendation Systems With Social Information Imputation
Master	CFPh-Growth Tree: A Data Structure For Mining Association Rules With Skewed Support Distribution
Fellowship	Fellow of the Higher Education Academy from AdvanceHE



Professional Record: (Beginning with the most recent)

Job Rank	Place and Address of Work	Date
Assistant Professor	Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	2019 - now
Research Assistant	University of Kentucky, KY, USA	1/2017-5/2017, 9/2018-5/2019
Lecture	Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	2013-2019
Teaching Assistant	Imam Abdulrahman Bin Faisal University, Dammam, Saudi Arabia	2007-2012

Administrative Positions Held: (Beginning with the most recent)

Administrative Position	Office	Date
Deputy Head of the Computer Department	Community Collage	2019 - 2020

Scientific Achievements

Published Refereed Scientific Researches

(In Chronological Order Beginning with the Most Recent)

#	Name of Investigator(s)	Research Title	Publisher and Date of Publication
1	Fatemah H Alghamedy , Muhammad Shafiq, Lijuan Liu, Affan Yasin, Rehan Ali Khan, and, Hussien Sobahi Mohammed	Machine Learning-Based Multimodel Computing for Medical Imaging for Classification and Detection of Alzheimer Disease	Computational Intelligence and Neuroscience 2022
2	Turki Alanzi, Fahad Alanezi, Demah Alsalman, Asma Alfayez, Reem Aldossary, Hala Alhodaib, Bashair AlThani, Maha AlShammari, Fatemah Alghamedy , and Afnan Aljaffary	A comparative study of strategies for containing the COVID-19 pandemic in Gulf Cooperation Council countries and the European Union	Informatics in Medicine Unlocked, 2021, 100547
3	Fahad Alanezi, Anan Aljahdali, Seham M Alyousef, Hebah Alrashed, and Hayat Mushcab, Bashair AlThani, Fatemah	A Comparative Study on the Strategies Adopted by the United Kingdom, India, China, Italy, and Saudi Arabia to Contain	Journal of healthcare leadership, 2020, 12: 117



	Alghamedy , Hessa Alotaibi, Amjad Saadah, and Turki Alanzi	the Spread of the COVID-19 Pandemic	
4	Fahad Alanezi, Anan Aljahdali, and Seham Alyousef, Wyam Alshaikh, and Hayat Mushcab, Bashair AlThani, Fatemah Alghamedy , and Hussah Alotaibi, and Sharifah Alrajhi, and Dhabia Alabbadi	Investigating healthcare practitioners' attitudes towards the COVID-19 outbreak in Saudi Arabia: a general qualitative framework for managing the pandemic	Informatics in medicine unlocked, 2020, 100491
5	Fatemah Alghamedy and Jun Zhang	Imputation strategies for cold-start users in NMF-based recommendation systems.	In Proceedings of the Proceedings of the 2019 3rd International Conference on Information System and Data Mining, pp. 119-128. Houston, Texas, USA, April 6-8, 2019.
6	Fatemah Alghamedy and Jun Zhang	Enhance NMF-based recommendation systems with social information imputation.	Computer Science & Information Technology, Vol. 8, No. 15, pp. 37-54, November, 2018.
7	Fatemah Alghamedy , Maryam Al-Ghamdi, and Jun Zhang	Imputing item auxiliary information in NMF-based collaborative filtering.	Computer Science & Information Technology, Vol. 8, No. 15, pp. 21-36, November, 2018
8	Fatemah Alghamedy , Jeevith Bopaiah, Derek Jones, Xiaofei Zhang, Heidi Weiss, Sally Ellingson	Incorporating protein dynamics through ensemble docking in machine learning models to predict drug binding.	AMIA Joint Summits on Translational Science proceedings. <i>AMIA Joint Summits on Translational Science</i> , Vol. 2017, pp. 26--34, May, 2018.
9	Derek Jones, Jeevith Bopaiah, Fatemah Alghamedy , Nathan Jacobs, Heidi Weiss, W.A. de Jong, Sally Ellingson	Polypharmacology within the full kinome: a machine learning approach.	AMIA Joint Summits on Translational Science, Vol. 2017, pp. 98--107, May, 2018
10	Fatemah Alghamedy , Xiwei Wang, and Jun Zhang	Imputing trust network information in NMF-based collaborative filtering.	In Proceedings of the Proceedings of the ACMSE 2018 Conference, pp. 2:1--2:8. Richmond, Kentucky, USA, March 29 - 31, 2018.



#	Name of Investigator(s)	Research Title	Journal	Acceptance Date

Scientific Research Papers Presented to Refereed Specialized Scientific Conferences

#	Name of Investigator(s)	Research Title	Conference and Publication Date

Completed Research Projects

#	Name of Investigator(s) (Supported by)	Research Title	Report Date

Current Researches

#	Research Title	Name of Investigator(s)

Contribution to Scientific Conferences and Symposia

#	Conference Title	Place and Date of the Conference	Extent of Contribution

Membership of Scientific and Professional Societies and Organizations

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Teaching Activities

Undergraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)
1	Computer Origination	IT120	3 hours per week (16 weeks)



2	Database Management System	CIS 212	2 hours per week (16 weeks)
3	Data Structure	CS 213	3 hours per week (16 weeks)
4	Graduation Project I	CS 304	3 hours per week (16 weeks)
5	Graduation Project II	CS 314	3 hours per week (16 weeks)
6	Information Security	COMP 204	3 hours per week (16 weeks)

Brief Description of Undergraduate Courses Taught: (Course Title – Code: Description)

IT120: This course teaches the internal architecture of the computer to makes the students familiar with the internal components of the computer, how they are integrated together, and the way they are controlled.

CIS 212: An advanced course familiarizing the student with the Database Management System. Instruction covers database terminology, data structure design, data retrieval and manipulation. Also includes alternative and generic approaches to database design and database management system including relational, object-relational, and object-oriented systems, SQL standards, algebraic query languages, integrity constraints, triggers, functional dependencies, and normal forms. The course will be accompanied by a practical part (lab) in which the students will learn popular Database tools and query language techniques (such as: SQL) and how to use these tools to develop Database Management systems.

CS 213: Teach the students how to select and design data structures and algorithms that are appropriate for problems that they might encounter. This course is also about showing the correctness of algorithms and studying their computational complexities. In addition, it offers the students a mixture of theoretical knowledge and practical experience.

Postgraduate

#	Course/Rotation Title	No./Code	Extent of Contribution (no. of lectures/Tutorials. Or labs, Clinics)

Brief Description of Postgraduate Courses Taught: (Course Title – Code: Description)

1	
2	



Course Coordination

#	Course Title and Code	Coordination	Co-coordination	Undergrad.	Postgrad	From	To
1	Computer Origination (IT120)	Yes		Yes			
2	Database Management System (IT120)	Yes		Yes			
3	Data Structure (CS 213)	Yes		Yes			
4	Information Security (COMP 204)	Yes		Yes			

Guest/Invited Lectures for Undergraduate Students

#	Activity/Course Title and Code	Subject	College and University or Program	Date

Student Academic Supervision and Mentoring

#	Level	Number of Students	From	To
1	L3-4	10	2019	2020
2	L5-6	13	2020	2021
3	All levels	6	2021	2022

Supervision of Master and/or PhD Thesis

#	Degree Type	Title	Institution	Date

Ongoing Research Supervision

#	Degree Type	Title	Institution	Date

Administrative Responsibilities, Committee and Community Service (Beginning with the most recent)

Administrative Responsibilities



#	From	To	Position	Organization

Committee Membership

#	From	To	Position	Organization
1	2019	now	member	Scientific Council of the Computer Department
2	2019	2021	member	The Standing Committee for Study Plans and Programs
3	2020	2021	collaborator	Quality of Assessment and Examinations Center

Scientific Consultations

#	From	To	Institute	Full-time or Part-time

Volunteer Work

#	From	To	Type of Volunteer	Organization

Personal Key Competencies and Skills: (Computer, Information technology, technical, etc.)

1	Machine Learning
2	Data Mining
3	Data Science
4	Data Analysis
5	Programming Language: Python, Java, MATLAB, C++, SQL, LaTeX, CUDA, OpenGL, AutoCAD.

Last Update

09/09/2022