

PERSONAL INFORMATION

Layal Abu Daher



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Sex Female | Nationality Lebanese

Work Experience

[September, 2022 – Present]

Assistant Professor, Computer Science

Department of Mathematics and Computer Science
 Faculty of Science
 Beirut Arab University

[September, 2015 – 2022]

Head of Unit – Dean's Office – Faculty of Science

- Preparing course offering and Instructors' Schedules.
- Following up the applications of transferred students for courses equivalency
- Member of the organizing committees for various conferences, workshops, scientific meeting conducted in the academic year
- Conducting various administrative and logistic tasks
- Responding to student inquiries and questions via mail
- Maintaining the communication between the Dean, faculty staff members, non academic staff members and students
- Preparing Faculty Councils Agenda & Minutes throughout the Academic Year
- Preparing final exam schedules and assigning proctors in the different University Campuses

Webpage Administrator - Faculty of Science

- Managing and publishing content
- Maintaining Web design
- Answering consultation questions
- Maintaining continuity of themes
- Designing layout
- Streamlining navigation and increasing online presence to potential students
- Search engine analysis to maximize traffic to website
- Maintaining awareness of marketing techniques

[September, 2014 – 2015]

Systems Coordinator - IT Department

- Responsible of the coordination between the IT Department sections and provide technical support to different types of end users in the university.
- Responsible of the HelpDesk system used by the different types of university users.
- Setting up and Updating the computer systems required
- Installing the required computer applications and programs
- Maintaining and setting up the hardware and software required
- Maintaining and setting up other computer devices such as printers, scanners etc...
- Identifying and solving the problems that affect computer operating systems

[September, 2012 – 2014]

Head of Unit, Vice President Office for Academic Affairs

- Assist the Vice President in performing management functions such as staffing, training and expanding business plans
- Maintain cordial relations with other staff and assist them in resolving their issues
- Act as a link between the Vice President, Faculty Deans, Faculty Registrars, different university departments such as the IT, and employees
- In charge of preparing for Entrance Exams, workshops and conferences
- Students disciplinary board and meetings
- Technical IT support
- Evaluate and install computer hardware, networking software and operating system software
- Configuration and Monitoring of Anti-Spam, Anti-Virus and Firewalls
- Installing, Maintaining and Troubleshooting: computer devices, software, and other computer peripherals
- Facilitate daily missions
- Execute various tasks

[September, 2007– 2012]

Administrative Assistant - Dean's Office - Faculty of Science

- Member of the team preparing for the ABET accreditation of the Computer Science Program
- Faculty website administrator
- Banner database representative for the Faculty of Science
- Responsible for room scheduling, course offering, staff load distribution
- Archiving
- Course catalog updating

[September, 2012 – 2022]

Instructor - Center for Consultation

- ICDL (International Computer Driving License)
- IC3 Certified: Key Applications, Living Online, Computing Fundamentals

[January, 2011 – 2012]

Teaching Assistant

- Database systems
- Operating Systems
- Introduction to Information Technology
- Introduction to Programming

Education

Class of 2019
Beirut Arab University
Debbieh, Lebanon

Class of 2011
Beirut Arab University
Debbieh, Lebanon

Class of 2007
Beirut Arab University
Beirut, Lebanon

Class of 2003
National Evangelical Institute for Girls and Boys
Saida, Lebanon

Ph.D. in Information Technology

Dissertation Title: "Group Dynamicality in Online Social Networks"

M.Sc. in Information Systems

Thesis Title: "An Experimental Study on Universities' Social Networks in Some Lebanese Universities"

B.Sc. in Information Systems

Lebanese Baccalaureate in Life Science

Conferences & Workshops

March 2008	<i>Certificate of Attendance World Water Day Beirut Arab University</i>
February 2009	<i>Installation GNU/Linux Agence Universitaire de la Francophonie(AUF) Beirut, Lebanon</i>
March 2009	<i>Certificate of Attendance Workshop on Mathematics and its Applications Beirut Arab University</i>
May 2009	<i>Certificate of Attendance Science Research Day Beirut Arab University</i>
November 2010	<i>Certificate of Attendance Arabs to Face Severe Water Shortages by 2015 Arab Forum for Environment & Development Habtoor Grand Hotel, Beirut</i>
March 2011	<i>Certificate of Attendance Euro-Mediterranean University (EMUNI) Research Souk Beirut Arab University</i>
December 2011	<i>Communication Skills Training El-Meouchy Education Consultancy Beirut, Lebanon</i>
February 2012	<i>Personal Productivity Training El-Meouchy Education Consultancy Beirut, Lebanon</i>
March 2012	<i>Time and Stress Management Training El-Meouchy Education Consultancy Beirut, Lebanon</i>
April 2012	<i>Certificate of Attendance Information Technology Day Beirut Arab University</i>
April 2012	<i>Certificate of Attendance Science Research Day Beirut Arab University</i>
April 2012	<i>Certificate of Attendance The Third Annual Meeting of the Lebanese Society for Mathematical Sciences Beirut Arab University</i>
September 2012	<i>Certificate of Attendance Vex Robotics Competition Workshop Beirut Arab University</i>
November 2012	<i>Certificate of Attendance Ecological Footprint: Survival Options in the Arab Countries Arab Forum for Environment & Development Phoenicia hotel, Beirut</i>
December 2012	<i>Certificate of Participation The 13th International Arab Conference on Information Technology (ACIT 2012) Zarqa - Jordan</i>

December 2012	<i>Certificate of Attendance Presentation about Mammogram Images Segmentation for Breast Cancer Detection Beirut Arab University</i>
February 2013	<i>ICDL Trainer (International Computer Driving License) UNESCO, Beirut, Lebanon</i>
January 2015	<i>IT Essentials A+ Certificate Cisco Networking Academy Beirut, Lebanon</i>
March 2015	<i>Certificate of Attendance The Importance of Collaboration between the Ministry of Environment and the Researchers to Preserve the Environment in Lebanon Beirut Arab University</i>
March 2015	<i>Certificate of Attendance Health and Illness: Psychological Perspective Beirut Arab University</i>
November 2016	<i>Internship Certificate Sustainable Development in a Changing Arab Climate Arab Forum for Environment & Development American University of Beirut</i>
March 2017	<i>Certificate of Appreciation Materials Technology Workshop Beirut Arab University</i>
April 2017	<i>Certificate of Presentation The Lebanese Conference on Information Systems (LCIS) 2017 Lebanese American University</i>
October 2017	<i>Certificate of Participation The International Conference on New Trends in Computing Sciences (ICTCS 17) Amman - Jordan</i>
January 2018	<i>Digital Marketing Training Joseph Yaacoub Digital Marketing Consultant</i>
January 2018	<i>IC3 Trainer: Key Applications, Living Online, Computing Fundamentals Certiport - A Pearson VUE Business</i>
March 2018	<i>Certificate of Participation First Student Innovation & Research Conference for Arab Universities & Schools Beirut Arab University</i>
October 2019	<i>Certificate of Appreciation LCPC Competition Beirut Arab University</i>
March 2022	<i>Presenting WEKA Machine Learning Workshop Rafik Hariri University Mechref, Lebanon</i>
March 2022	<i>Coursera Certificate Work Smarter, Not Harder: Time Management for Personal & Professional Productivity University of California, Irvine</i>
March 2023	<i>Presenting WEKA Machine Learning Workshop Rafik Hariri University Mechref, Lebanon</i>

December 2023

Certificate of Participation
16th International Conference on Developments in eSystems Engineering (DeSE)
Atlas University, Istanbul, Turkey

July 2025

Certificate of Participation
7th International Conference on Intelligent and Fuzzy Systems
yildiz university, Istanbul, Turkey

July 2026

Certificate of Participation
2026 International Conference on Smart Applications, Communications and Networking (SmartNets)
LINK University, Rome, Italy

Publications

1. Usability evaluation of some Lebanese universities web portals. Daher, L. A., & Elkabani, I., Proceedings of the 13th international Arab conference on information technology ACIT, Zarqa, Jordan, 2012, pp.10-13.
2. Dynamic Evolution of Hashtags on Twitter: A Case Study from Career Opportunities Groups, Layal Abu Daher, Rached Zantout, Islam Elkabani, Proceedings of the International Conference on New Trends in Computing Sciences (ICTCS), Amman Jordan, 2017
3. User Influence on Twitter Hashtags Evolution: A Case Study from Career Opportunities Groups, Layal Abu Daher, Rached Zantout, Islam Elkabani, International Journal of Applied Engineering Research, 13(6), pp. 3157- 3164, 2018.
4. Evolution of Hashtags on Twitter: A Case Study from Events Groups, Layal Abu Daher, Rached Zantout, Islam Elkabani, Khaled Almoustafa, Proceedings of the 5th International Symposium on Data Mining Applications, pp. 181-194, KSA, 2018.
5. Identifying Influential Users on Twitter: A Case Study from Paris Attacks, Layal Abu Daher, Islam Elkabani, Rached Zantout, Journal of Applied Mathematics and Information Sciences 12(5), pp.1021-1032, 2018.
6. Identifying Influential Users on Twitter's Trendy Hashtags Using Association Rule Learning, Layal Abu Daher, Islam Elkabani, Rached Zantout, Proceedings of 2018 International Conference on Computational Science and Computational Intelligence - Social Network Analysis, Social Media, & Mining (CSCI-ISNA), IEEE, pp: 1293-1296, Las Vegas, USA, 2018.
7. Use of FP-Growth Algorithm in Identifying Influential Users on Twitter Hashtags, Layal Abu Daher, Islam Elkabani, Rached Zantout, Accepted for Publication, International Conference on Compute And Data Analysis, (ICCD 2020), March 9-12, 2020 - Silicon Valley, San Jose, United States.
8. FAMAID: A Tool for Aiding People with Disability, M Maad, A Owaydate, M Kojok, F Aboudaher, L Abu Daher, M Itani, BAU Journal-Science and Technology 4 (1), 2.
9. Itani, May; Abu Daher, Layal; and Hammoud, Ahmad (2023) "TOWARDS DIGITAL TWINS FOR OPTIMIZING METRICS IN DISTRIBUTED STORAGE SYSTEMS - A REVIEW," BAU Journal - Science and Technology: Vol. 5: Iss. 1, Article 9.
DOI: <https://doi.org/10.54729/2959-331X.1118>
10. Daher LA. Towards Secure IoMT: Attack Detection Using Deep Q-Learning in Healthcare Networks. In 2023 16th International Conference on Developments in eSystems Engineering (DeSE) 2023 Dec 18 (pp. 407-412). IEEE.
11. Abu Daher, Layal; Elkabani, Islam; and Zantout, Rashed (2024) "ADOPTING ASSOCIATION RULE LEARNING FOR DETECTING AND RANKING INFLUENTIAL USERS ON HASHTAGS," BAU Journal - Science and

Technology: Vol. 6: Iss. 1, Article 6.

DOI: <https://doi.org/10.54729/2959-331X.1142>

12. Traboulsi, A., Itani, M., Abu Daher, L., & Haidar, A. (2025). FEDEVD: A FEDERATED ROAD TRAFFIC EVENT DETECTOR FROM SOCIAL NETWORKS. *BAU Journal-Science and Technology*, 6(2), 5.
13. Abu Daher, L. (2025, July). Intelligent Fake News Detection Using Deep Learning. In *International Conference on Intelligent and Fuzzy Systems* (pp. 87-95). Cham: Springer Nature Switzerland.
14. Chamass, Sajida, Layal Abu Daher, and May Itani. "An Optimized Approach for Detecting Osteoporosis Using Advanced Machine Learning and Genetic Algorithms." *IEEE Access* 13 (2025): 214009-214021.
15. El Arwadi, Lynn, and Layal Abu Daher. "CardioMind: Deep Learning Framework for Stress Detection Using IoT Devices." *IEEE Access* 13 (2025): 197027-197042.
16. Raba'a, E., & Abu Daher, L. (2026). UNMASKING TWITTER BOTS: AN APPLIED MACHINE LEARNING APPROACH. *BAU Journal-Science and Technology*, 7(2), 6.
17. Itani, M., & Daher, L. A. (2026, July). A Neuro-Evolutionary Approach for Emotion Recognition in Textual Data. In *2026 International Conference on Smart Applications, Communications and Networking (SmartNets)* (pp. 1-6). IEEE.
18. Daher, L. A., Itani, M., Boustani, A., Al Khaled, A., Saab, R., Khreibi, B. (2026). Federated Learning for Improved Healthcare in the AI Era: From Traditional Machine Learning to Transformers. *Journal of Intelligent Decision Making and Information Science*, 3(14s), 992-1004.

Thesis supervision

Ph.D Supervision

Mrs. Sajida Shammass; "Digital Twin for Detecting and Diagnosing Bone Diseases" (Co-supervision, in progress).

M.Sc. Supervision

Mr. Mostafa El Hajj; "Improving Cancer Prediction Using Digital Twins and Recent Machine Learning" (Co-supervision, Defended).

Mr. Mohammad Fouad Baghdadi, "A Multi-Agent Decision System for Cardiovascular Disease Detection" (Co-supervision, In Progress).

Beirut Arab University, LEBANON

Undergraduate Courses

First Level Courses: Introduction to Programming, Object Oriented Programming, Digital Circuits

Second Level Courses: Discrete Structures, Web Programming

Third Level Courses: Computer Networks, Image Processing, Machine Learning.

Graduate Courses: Advanced Topics in Computer Science, Data Mining and Knowledge Discovery, Deep Learning, Research Techniques.

General Elective Courses offered to all University students: Building Basic Android Apps

Teaching Experience

[2019 – present]

SERVICES

[September 2022- Present]

- Faculty Representative in the Committee of Student Affairs at Beirut Arab University 2025-2026
- Member of Faculty Council Committee 2023.
- Member of the Labs Committee 2022
- Head of the Library Committee 2023 - present
- Member of ABET Committee 2025-2026
- Member of ABET Committee 2026-2027.
- Member of Exams Committee 2025-2026
- Member of Online Programs Committee 2026-2027
- Member of the organizing Committee of "Web and Mobile Workshop" designed for high school students

LANGUAGE SKILLS

Mother tongue(s) Arabic

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

REFEREES

Prof. Mohammad Abdul Rahim mna@bau.edu.lb

Prof. Rached Zantout rached.zantout@gmail.com

Dr. Islam El Kabani elkabani@gmail.com