1 Personal Information

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2 Profile Summary

An accomplished academic with several years of experience in lecturing and research across the French, Jordanian and Emirates Universities. I have a strong interest in continuous teaching and learning. I have more than eighteen years of teaching experience in higher education institutions. I have been involved in teaching Artificial Intelligence, Data science, Computer science and Software engineering subjects, course coordination, material development, assessing, coaching students and ensuring the compliance with the academic guidelines. I have a wide exposure to different research problems, and a strong research track record in the fields of machine learning, deep learning, recommender systems, collaborative filtering, speech and image processing, and network security. I am believer in cooperative education (coop) and bring with me over five years of experience in this field. Currently, I am dedicated to implementing a coop program at Ajman University.

3 Education

February 2007 March 2010	**Ph.D. Computer Science**, AIX-Marseille University, France (Shanghai ranking 101-150), mention: Very Honorable distinction with unanimous congratulations from the jury. Thesis title: Morphodynamic Boolean Quantification of Speech: Applications in Phonetic Encoding and Rapid Information Retrieval. Supervisor: Pr. Hervé Glotin. **Thesis committee**: Pr. Jacques Le Maître, President Pr. Jean-Paul Haton, Reporter Pr. Georges Quenot, Reporter Pr Bernard Espinasse, Examination Pr. Laurent Besacier, Examination A.Pr. Nicholas Evans, Examination Pr. Hervé Glotin, Thesis supervisor
September 2004 July 2005	**M.Sc. Information Science and Systems**, AIX-Marseille University, France, mention: Very Good. Thesis title: Information Retrieval from Audio Recording Transcriptions Using Machine Learning. Supervisor: Pr. Hervé Glotin.

September 1998 August 2004	**B.Sc. Computer Engineering**, National High School of Informatics (ESI), Algiers, Algeria, mention: Very Good. Thesis title: Development of an Ontology-Based Search Engine.

4 Professional Experiences

September 2024 – Present	**Professor** in Data Analytics, Information Technology department, College of Engineering & IT, Ajman University, UAE.
August 2021 – September 2024	**Associate Professor** in Data Analytics, Information Technology department, College of Engineering & IT, Ajman University, UAE. - Member of Artificial Intelligence Research Center (AIRC), College of Engineering and Information Technology, Ajman University, Ajman, United Arab Emirates.
September 2019- August 2020	**Head of the Department of Computer Science** (ABET Accredited), The department offers PhD in Computer Science, Masters in Computer Science, Masters in Information Systems Security and Digital Criminology, Bachelors in Computer Science. **Founder of the Department of Data Science,** The department offers Masters in Data Science, and Bachelors in Artificial Intelligence and Data Science. At King Hussein School of Computing Sciences, Princess Sumaya University for Technology PSUT (The First Technology University in Jordan, 42nd in QS Arab Region University Rankings), Amman, Jordan I led a team of 25 Faculty, 7 Lab Supervisors, and 15 Teaching Assistants.
September 2018 Present	**Department of Computer Science and Data Science**, King Hussein School of Computing Sciences, Princess Sumaya University for Technology PSUT, Amman, Jordan.
November 2017 - August 2018	**Head of Software Engineering Department**, Information Technologies Faculty, Al-Ahliyyah Amman University, Amman, Jordan
October 2017	**Associate Professor** in Computer Science, Information Technologies Faculty, Al-Ahliyyah Amman University, Amman, Jordan
September 2012 - October 2017	**Assistant Professor** in Computer Science, Information Technologies Faculty, Al-Ahliyyah Amman University, Amman, Jordan
September 2010 - August 2012	**Faculty member** in Information Technologies Faculty, UTEC (University of Technology Teaching consular), Ministry of Industry, France.
September 2008 - August 2010	**Teaching and Research Assistant** in Information Technologies Faculty, Aix-Marseille University and Toulon University.
February 2007 -August 2008	**Research Engineer, CNRS** - The National Center for Scientific Research, The largest governmental research organisation in France

February 2006 - August 2007	**Part-time Teacher** in Information Technologies Faculty, Aix-Marseille University.

5   Highlights

- Deputy team leader for the Simulation and Timing reconstruction package for MTD project. The European Organization for Nuclear Research, Compact Muon Solenoid program CERN's CMS 2020, Switzerland.
- Coordinator of COOP program, CEIT, Ajman University.
- Member of the Planning and Budgeting Committee, Ajman University.
- Judge member for the 40th edition of the Rashid bin Humaid Award for Culture and Science.
- Judge member for Future Science Challenge (GCC region).
- Head of the Learning Resources Committee. IT department, Ajman University.
- External academic expert with the Higher Education Accreditation Commission (HEAC) in Jordan. Reviewed several AI and Data Science programs.
- Member of the organization committee for the National Jordanian Cooperative Higher Education conference, Jordan 2018.
- Curriculum design and deployment at Bachelors and Masters levels
- Head of Quality Assurance Committee in the Department of Data Science 2020
- Member of the Technical Committee of the Cooperative Higher Education Conference 2020 organized by German Corporation for International Cooperation (GIZ)
- Member of Steering Committee for the Higher Education Component of MOVE-HET, GIZ 2020, Amman, Jordan.
- Designed the Data Science undergraduate program in 2019
- Establishment of Computer Science and Data Science Bachelors Dual degree between Princess Sumaya University for Technology and Colorado State University in 2019
- Designed the Data Science course for graduate program.
- Technical Committee member of the ICTCS2019 conference (Scopus).

6   Research activities

6.1 Supervision:

- **Co-Supervisor of PhD Thesis**:
  - MS. Bushra Hijawi: Multi-Objectives Personalized Collaborative Filtering Recommender Systems using Inheritance and Graph based Models. (since Sept 2020, PSUT).
- **Supervisor of Master Thesis**:
  - Mr Waseem Twal 2023: Smart Multi-Dimensional Collaborative Approach for Sales Forecasting.
  - Mr. Ahmad Alqam 2021: Data Compression Using Deep Learning Techniques.
  - Ms. Eman Alnagi 2021: English-Arabic Machine Translation Using Auto-Encoder Model.
  - Ms. Bushra Abu Tahoun 2021: Recommendation Approach Using Multimodal AutoEncoder.
  - Ms. Haneen Mohammad Innab 2020: Business Intelligence Solution For Human Resource Management Human Resource Analytics.
  - Ms. Malak Fraihat 2020: New Clustering Approach to Predict the Best Customer Offer.

- o Ms. Razan Alomoush 2020: Implementation of BI Framework for a Global Online Retail.
- o Lina Dajani 2020: Customer Reviews Classification based on Sentiment Analysis.
- o Omar Shandaq 2020: Business Intelligence Solution for Amazon, Reviews and Retail Departments.
- o Mr Ali Hasoun 2019: A Framework of Business Intelligence Solution for Real Estates Analysis.
- o Ms. Layanah Wreikat 2019: Data Analytics System for Mobile Money process.

- **Examiner for PhD thesis**
  - o Ms. Mariam Khader 2020: New Density-Based Method For Big Data Clustering, PSUT.
  - o Mr. Wael Mahmoud Al Etaiwi 2020: Semantic Graph Learning For Abstractive Arabic Text Summarization. PSUT.

- **Examiner for Master's thesis:**
  - o Mr. Mohamed AlQaydi 2023: Blind Image Quality Assessment Using Deep Networks Fusion. AU, UAE.
  - o Ms. Fatima Alajmani 2023: Fake News Detection using Grey Wolf Optimizer. AU, UAE.
  - o Ms. Munira Abdallah 2022: Business Intelligence Solution for Pharmacy Drugs Sales. AU, UAE.
  - o Ms. Shaikha Al-Ali 2022: Identification of Wanted People Using Face Recognition Technology. AU, UAE.
  - o Ms. Mozah Aldhanhani 2022: Business Intelligence Solution For Covid-19 Pandemic. AU, UAE.
  - o Mr. Hamzeh Al Kilani 2021: OSINT Semi-Automation Model to Detect Suspicious User Behavior on Social Media.
  - o Ms. Maisa Abedlraheem M. Alasasfeh 2021: Dynamic Cyber Security Risk Management (Intelligence Security Operation Center) using Machine Learning.
  - o Ms. Mays Alhasan 2021: Loan Default Prediction: The significant Data Engineering Modeling techniques that lead to quality output.
  - o Mr. Mohammad A. Bsoul 2021: Building an Optimal Dataset for Arabic Fake News Detection.
  - o Mr. Rashed J. Al-Hamadin 2021: A New Approach for Data Symmetric Key Cryptography Using Fast Neural Networks with Single Step of Backpropagation and Finite Fields.
  - o Mr Mohamed Abushwereb 2020: An accurate IoT Intrusions Detection Framework using Apache Spark.
  - o Mr Ahmad Khader Rezeq Ghannam 2020: Using Second-Order Newton's Method for Artificial Neural Networks Optimizations.
  - o Ms Batool Nayef ALArmouty 2020: Data Augmentation for Pain Intensity Recognition using Least Square Generative Adversarial Networks.

- Examiner for 15 capstone projects in the Master's in Computer Engineering Management program and Master Master2 of Computer Networks and Tele-communications (2010-2012).UTEC, Paris, France.

6.2 Publications
- Taha, Mohammad Bany; Sanjalawe, Yousef; Al-Daraiseh, Ahmad; Fraihat, Salam. "Proactive Auto-Scaling for Service Function Chains in Cloud Computing Based on Deep Learning." IEEE Access, 2024.

- Al-Betar, Mohammed Azmi; Kassaymeh, Sofian; Makhadmeh, Sharif Naser; Fraihat, Salam; Abdullah, Salwani. "Feedforward Neural Network-Based Augmented Salp Swarm Optimizer for Accurate Software Development Cost Forecasting.", Applied Soft Computing, vol. 149, 2023, p. 111008.
- Ali, Maryam; Shabanh, Rahmah; Fraihat, Salam. "Using Deep Learning to Predict Obesity and Its Effect on Human Physiology.", 2023 24th International Arab Conference on Information Technology (ACIT), IEEE, 2023, pp. 6-Jan.
- Al-Betar, Mohammed Azmi; Abasi, Ammar Kamal; Alyasseri, Zaid Abdi Alkareem; Fraihat, Salam; Mohammed, Raghad Falih. "A Communication-Efficient Federated Learning Framework for Sustainable Development Using Lemurs Optimizer.", Algorithms, vol. 17, no. 4, 2024, p. 160.
- Al-Daraiseh, Ahmad; Sanjalawe, Yousef; Fraihat, Salam; Al-E'mari, Salam. "Novel, Fast, Strong, and Parallel: A Colored Image Cipher Based on SBTM CPRNG.", Symmetry, vol. 16, no. 5, 2024, p. 593.
- Kassaymeh, Sofian; Al-Betar, Mohammed Azmi; Rjoubd, Gaith; Fraihat, Salam; Abdullah, Salwani; Almasri, Ammar. "Optimizing Beyond Boundaries: Empowering the Salp Swarm Algorithm for Global Optimization and Defective Software Module Classification.", Neural Computing and Applications, 2024, p. Jan-33.
- Ababneh, Ahmad; Sanjalawe, Yousef; Fraihat, Salam; Al-E'mari, Salam; Alqudah, Hamzah. "Orbit Weighting Scheme in the Context of Vector Space Information Retrieval.", Computers, Materials & Continua, vol. 80, no. 1, 2024.
- Fraihat, Salam; Bushra Abu Tahon; Bushra Alhijawi; Arafat Awajan, "Deep Encoder-Decoder based Shared-Learning for Multi-Criteria Recommendation Systems", Neural Computing & Applications, 1433-3058, 2023 Accepted **(IF:6.0, Q1)**
- Mohammed Awad, Salam Fraihat, DT-RFECV, "Feature Selection Method for Machine Learning-based Intrusion Detection Systems", Journal of Sensor and Actuator Networks, 2224-2708, 2023 Accepted **(IF:3.5, Q1*)**
- Fraihat, Salam; Al-Betar, Mohammed Azmi; "A novel lossy image compression algorithm using multi-models stacked AutoEncoders." Array, 19, 100314, 2023, Elsevier. **(Q1)**
- Fraihat, Salam; Makhadmeh, Sharif; Awad, Mohammed; Al-Betar, Mohammed Azmi; Al-Redhaei, Anessa; "Intrusion detection system for large-scale IoT NetFlow networks using machine learning with modified Arithmetic Optimization Algorithm." Internet of Things, 22, 100819, 2023, Elsevier. **(IF:5.9, Q1*)**
- Alhijawi, Bushra; Fraihat, Salam; Awajan, Arafat; "Adaptable inheritance-based prediction model for multi-criteria recommender system." Multimedia Tools and Applications, 82, 32421–32442, 2023, Springer. (**IF:3.6, Q1**)
- Alhijawi, Bushra; Fraihat, Salam; Awajan, Arafat; "Multi-factor ranking method for trading-off accuracy, diversity, novelty, and coverage of recommender systems." International Journal of Information Technology, 15(3), 1427-1433, 2023, Springer. **(Q2)**
- Alhijawi, Bushra; Awajan, Arafat; Fraihat, Salam; "Survey on the objectives of recommender systems: measures, solutions, evaluation methodology, and new perspectives." ACM Computing Surveys, 55(5), Jan-38, 2022, ACM. **(IF: 14.3, Q1*)**
- Al-Fawa'reh, Mohammad; Al-Fayoumi, Mustafa; Nashwan, Shadi; Fraihat, Salam; "Cyber threat intelligence using PCA-DNN model to detect abnormal network behavior." Egyptian Informatics Journal, 23(2), 173-185, 2022, Elsevier. **(IF: 5.2, Q1*)**
- Fraihat, Malak; Fraihat, Salam; Awad, Mohammed; AlKasassbeh, Mouhammd; "An efficient enhanced k-means clustering algorithm for best offer prediction in telecom." International Journal of Electrical and Computer Engineering, 12(3), 2931, 2022, IAES. **(IF:2.4, Q2)**

- Awad, Mohammed; Fraihat, Salam; Salameh, Khouloud; Al Redhaei, Aneesa; "Examining the suitability of NetFlow features in detecting IoT network intrusions." Sensors, 22(16), 6164, 2022. **(IF:3.9, Q1)**
- Awad, Mohammed; Al Redhaei, Aneesa; Fraihat, Salam; "Using business intelligence to analyze road traffic accidents."Proceedings of the Central and Eastern European eDem and eGov Days, 83-92, 2022. **ACM.**
- Fraihat, Salam; Innab, Haneen; Makhadmeh, Sharif Naser; Al-Betar, Mohammed Azmi; "Business Intelligence System for Human Resource Management System." 2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA), 6-Jan, 2022, **IEEE.**
- Al-Omoush, Razan; Fraihat, Salam; Al-Naymat, Ghazi; Awad, Mohammed; "Design and implementation of business intelligence framework for a global online retail business." 2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA), 6-Jan, 2022, **IEEE**.
- Fraihat, Salam; Salameh, Walid A; Elhassan, Ammar; Tahoun, Bushra Abu; Asasfeh, Maisa; "Business Intelligence Framework Design and Implementation: A Real-estate Market Case Study." ACM Journal of Data and Information Quality (JDIQ), 13(2), 2021, ACM. **(Q1)**
- Shahin, Dana; Awad, Mohammed; Fraihat, Salam; "Meteorological Data Analytic System: Descriptive and Predictive Analysis." Journal of Theoretical and Applied Information Technology (JTAIT), 99(14), 2021. **(Q3)**
- Fraihat, Salam; Mahmoud, AlMomani; Fraihat, Malak; Awad, Mohammad; "Telecom Big Data: Social Media Sentiment Analysis." International Journal of Advanced Trends in Computer Science and Engineering, 9(4), 4322 – 4327. **(Scopus)**
- Ballout, Amal; Al Hasan, Mays; Fraihat, Salam; Elhassan, Ammar; "Business Intelligence & Data Analytics Framework: Case Study of Humanitarian Organizations Refugees Registration System". International Journal of Innovative Computing and Applications, 2020, Inderscience Publishers. **(Scopus)**
- AlArmouty, Batool; Fraihat, Salam; "Data analytics and business intelligence framework for stock market trading". 2019 2nd International Conference on new Trends in Computing Sciences (ICTCS), 2019, **IEEE**.
- AlWreikat, Layanah; AlShawa, Ali; Al-Rimawi, Dalia; Fraihat, Salam; "Business intelligence and data analytics system for mobile money". Proceedings of the Second International Conference on Data Science, E-Learning and Information Systems, 2019. **IEEE.**
- Abutahoun, Bushra; Alasasfeh, Maisa; Fraihat, Salam; "A framework of business intelligence solution for real estates analysis". Proceedings of the Second International Conference on Data Science, E-Learning and Information Systems, 2019. **IEEE.**
- Shambour, Qusai; Fraihat, Salam; Hourani, Mouath; "The Implementation of Mobile Technologies in Higher Education: A Mobile Application for University Course Advising". Journal of Internet Technology, 2018, Executive Committee, Taiwan Academic Network, Ministry of Education, Taipei. **(IF:1.6 ,Q3)**
- Fraihat, Salam; "Ontology-Concepts Weighting For Enhanced Semantic Classification Of Documents". International Journal of Innovative Computing, Information and Control (IJICIC), 2016. **(Q2)**
- Fraihat, Qusai Shambour and Mou'ath Hourani and Salam; "An Item-based Multi-Criteria Collaborative Filtering Algorithm for Personalized Recommender Systems". International Journal of Advanced Computer Science and Applications, 2016, The Science and Information (SAI) Organization. **(IF:0.9 ,Q3)**
- Fraihat, Salam; Shambour, Qusai; "A Framework of Semantic Recommender System for e-Learning". Journal of Software, 2015.

- Fraihat, Salam; "New Semantic Indexing and Search System Based on Ontology". Fourth International Conference on Emerging Intelligent Data and Web Technologies (EIDWT), 2013, **IEEE**.
- Fraihat, Salam; Glotin, Hervé; "Indexation rapide de documents audio par traitement morphologique de la parole". Ingénierie des systèmes d'information, 2010, Lavoisier. **(Q3)**
- Fraihat, Salam; Glotin, Herve; "Towards Image Processing Compact Vowels Coding". The Fifth International Conference Sciences of Electronic, Technologies of Information and Telecommunications (SETIT) **IEEE**, Tunis, 2009.
- Fraihat, Salam; Glotin, Herve; "New Time-Frequency Vowel Quantization Enhanced by Subband Ranking". **IEEE** International Conference on Signal Processing and Multimedia Applications (SIGMAP), 2008. Porto, Portugal.
- Warnier, Pierre; Glotin, Hervé; Dandurand, F; Dufau, S; Fraihat, S; Touzet, C; Lété, B; Ziegler, J; "ART2 et apprentissage de séquences de mots: l'ordre compte". Deuxième conférence française de Neurosciences Computationnelles, "Neurocomp08," 2008.
- Warnier, P; Glotin, H; Dandurand, Frédéric; Dufau, Stéphane; Fraihat, S; Touzet, C; "Adaptive Resonance Theory": L'ordre de résentation des mots compte-t-il?". Second French conference on Computational Neuroscience, 2008.
- Fraihat, S; Aloui, N; Glotin, H; "Parsimonious time-frequency quantization for phoneme and speaker classification". IEEE Conference on Electrical and Computer Engineering (CCECE), 2008. Niagara Falls, Canada. **IEEE**.
- Salam, Fraihat; Aloui, Nidhal Ben; Glotin, Hervé; "Parcimonious time frequency quantization for phoneme and speaker classification". Canadian Conference on Electrical and Computer Engineering CCECE, 2008, Niagara Falls, Canada. **IEEE**.

6.3 *Reviewing Activities:* I served as reviewer for many international journals and conferences:

- reviewer for Archives of Computational Methods in Engineering Journal (IF:8.7, Q1*)
- reviewer for Journal of Ambient Intelligence and Humanized Computing (IF:7.1, Q1*)
- reviewer for Journal of Supercomputing (IF:3.3, Q1)
- reviewer for Cogent Engineering Journal (IF:1.9, Q2)
- reviewer for Elsevier Array journal (Q1)
- reviewer for International Journal of Human-Computer Interaction (IF: 4.7, Q1*)
- reviewer for Computers, Materials & Continua Journal (Q1)
- TPC of the MobiSPC 2023: The 20th International Conference on Mobile Systems and Pervasive Computing. Nova Scotia, Canada.
- TPC of the Graduate Students Research Conference (GSRC), March 2023, Abu Dhabi, UAE.
- TPC of the 4rth International Workshop on Data-Driven Security (DDSW), March 2023. Leuven, Belgium
- Technical Program Committee (TCP) - The 3rd International Workshop on Data-Driven Security (DDSW), March 2022, Porto, Portugal.
- TOC of the International Conference on Emerging Trends in Computing and Engineering Applications, Nov 2022, Dead sea, Jordan.
- TPC of the MobiSPC 2022: The 19th International Conference on Mobile Systems and Pervasive Computing. Ontario, Canada.
- Best paper Award in CEEE ACM conference (attached)

6.4 *Skills*
- Deep learning, Generative model: Transformer, GAN, Autoencoder.

- Machine Learning/Data mining: Classification, Clustering, Regression.
- Data Engineering, Features selection, Data preprocessing.
- Libraries: Scikit, Keras, Numpy, Tensorflow. Anaconda, Jupyter. Azure ML. Power BI.
- Programming languages: Python, Matlab, C/C++, Java.
- Big Data: Hadoop and Spark using Docker. Kafka, SparkML, HDFS, HBase, NoSql, Sql Database.
- Object modeling (With UML) of information systems.

6.5 Research Interest

- Artificial Intelligence.
- Machine Learning and Deep learning
- Data Engineering/Data mining (Big Data, Data Analytics)
- Data modeling / Business Intelligence

6.6 Participation in Research Projects and Funds

Sept. 2023 – Oct. 2022 UAE	**Ajman University Grant (20k AED):** I Received a grant of 20,000 AED as Principal Investigator. Grant ID: #2022-IRG-ENIT-5, for the project titled 'lossy image compression algorithm using multi-models stacked AutoEncoders '.
Sept. 2023 – Oct. 2022 UAE	**Ajman University Grant (20k AED):** I Received a grant of 20,000 AED as co-Principal Investigator. Grant ID: #2022-IRG-ENIT-6, for the project titled 'Machine Learning Methods with Metaheuristic Swarm Intelligence Algorithms to tackle Software Engineering Prediction Problems '.
Sept. 2022 – Feb. 2021 Jordan	**Orange Jordan x PSUT AI Startup Incubator project (170k USD):** I am the project manager of this project. The aims of this project are Enhance and Develop National Incubators and/or Accelerators for Entrepreneurs, Management Teams, and Start Ups; The design, management and implementation of the AI incubator's startups skills development Bootcamp program.
since – Sep. 2020 Jordan	**ESCWA project:** I am member of the Council for the Orientation of Development and Ethics (CODE). The aim of the project is leveraging Big Data and Alternative Data Sources to Respond to Crises and Disasters in Lebanon and Jordan.
Feb. 2020 – Sep. 2020 Jordan	**COVID19 Project:** The project aims to provide a complete solution to understand and analyze the behavior of the epidemic and predict its progress, in order to provide decision-makers with a real view to make the right decision at the right time. In other hand, elaborate a Data analytic system to use the Jordanian government data in order to study the effect of Covid-19 confinement measures, and understand changes in necessary trips that can form recommendations on business hours.
June. 2019 – Sep. 2021 Jordan	**Dual Studies DS Programs Project (Fund received by PSUT: 250k Euro):** I am the PSUT manager of the DS project. The project is financed by the German development agency GIZ. The objective of this project is to support and secure the necessary preparations for the implementation of dual/cooperative studies at PSUT to systematically introduce students to real-life work conditions already during their studies and to develop of new quality of cooperation between universities and enterprises.

Sep 2017 – August 2020 Jordan	**JOVITAL Project. (200k Euro).** This is an EU funded project that offers Higher Education Institutions (HEIs) in Jordan the possibility to explore, implement, and disseminate state of the art academic practices in e-learning and virtual learning to enhance teaching quality and improve learning outcomes.
Sep. 2008 – Sep. 2009 France	**National Project EVALDA/ESTERE2 (500K euros).** Evaluation of broadcast automatic transcription systems. This prject is organized by the Directorate General for Armament and the Francophone Association of Speech Communication, with support from ELDA (Evaluations and Language resources Distribution Agency).
Sep. 2007 – Sep. 2009 France	**Computational Modeling of learning written words Project (1M euros).** Cognitive Sciences (Neurobiology of perception, reasoning and learning). This project financed by the National Agency for Research ANCL 2007-2009.

6.7 Scholarship

- Best Teacher Award at Ajman University, 2023-2024
- Best Paper Award on the Central and Eastern European eDem and eGov comference, 2022. ACM.
- Aix Marseille University (France) Scholarship Award from Sept-2006 to August-2009 (≈ 55k euro).

7 Teaching Activities

Year, status and Establishment	Title	Public
Since August 2021, Ajman University	**New Theoretical and Practical courses I have created:** Big Data, Data Engineering, Programing to Data Analytics I (Python), Programing to Data Analytics II (Tensorflow/Keras for Neural Networks), Data visualization. Others: Operating System, Object Oriented programing, Introductory programing.	Data Analytic /Information Technology Bachelor degrees
Since September 2018 Princess Sumaya University for Technology (PSUT), Jordan	**New Theoretical and Practical courses I have created:** Data Engineering/ Business Intelligence and Data Warehousing/Data Science for Business modeling.	Data Science Master
	Algorithm Design and Analysis, Data Structures, Object-oriented programming, Structured Programming, Introduction to computer science, and Introduction to Data Science	Computer science Bachelor's degree
Associate /Assistant Professor September 2012 – August 2018 Amman Al-Ahliyyah University, Jordan	Hadoop and big Data, Image processing, Multimedia System, Algorithms Design and Analysis, Object oriented, Software Engineering. **New courses I have redesigned:** Software Design and Architecture, Introduction to Software Engineering, Software Construction and Documentation.	Computer Science and Software Engineering Bachelor's degrees

Faculty member September 2010 – August 2012, France UTEC University of Technology Teaching Consular, France	Algorithms / System Programming Perl / Shell	M2I- Master's degree
	C/C++ object-oriented programming (Advanced)	M2IRT- Master's degree
	Software development and modeling (Unified Modeling Language UML), Algorithms / System Programming Perl/Shell/Bash, C++Projects, web application development HTML/PHP.	Bachelor's degree
	Supervision: project monitoring, technical and research activities reports	M2I- Master's / Bachelor's degree
part-time Teacher 2004/2008 Attached Teacher/ Researcher 2008/2010 Aix-Marseille III University, Sud Toulon-Var University, France	Operating Systems, Java Programming Language (Advanced), C Programming Language (Advanced), Algorithms and Data Structures, Computing for Science, Database, Web design. Computing and computer architecture. **New courses I have created:** Speech processing and Telecom applications.	Bachelor's degree
	Information system design, Advanced Database, Java Programming	SIS Master's degree

8   Annexes Activities

- Committee Member - establishment of new AI BSc program and accreditation. AU, UAE.
- Committee Member - Revision of Data Analytics program for accreditation. AU, UAE.
- Faculty committee member for COOP program with Waterloo University and Abdulla Al Ghurair Foundation for Education (semester 2021-2).
- Member of CEIT Strategic Plan 2022-2027. AU, UAE.
- Organization and Jury member for the programming challenge. AU, UAE.
- Monitor for Teacher Assistants to learn the latest technologies in the data analytics in order to be able to teach the laboratories sessions of 1/Data Engineering, 2/ Data visualization and 3/ Programing for data analytics I and II, Big Data courses. Ajman University, Ajman, United Arab Emirates.
- Member of the organization committee of the Winter Study Tour 2022. AU, UAE.
- Member of the Planning and Budgeting Committee. AU, UAE.
- Member of the Employability Task-Force. AU, UAE.
- Team leader on the Hackathon 5 competition (National Level). AU, UAE.
- Participation in many undergrade graduation projects discussions, PSUT, Jordan 2019/2020/2021.
- Scientific Research Committee, AAU, Jordan 2017.
- Organization Committee of the National Technology Parade IX, AAU, Jordan, 2016.
- Community service Committee, AAU, Jordan, 2015.
- Preparation of new course and examination papers for different modules and education degrees.
- Examiner of National Graduation Projects for BTEC Higher National Diploma in Informatics, University of Technology Teaching consular (UTEC), France, 2012.
- Examiner of Graduation Projects for M2I Master, University of Technology Teaching consular (UTEC), France, 2012.

- Organization of international travel as part of professional and cultural exchanges between France and Malta, 30 January 2012.
- Supervision of more than 20 students of Masters Computing, Networks and Tele-Communications, December 2010, IT & New Technologies Department at the UTEC.
- Organization Committee of CORIA 2009 (Conference on Search and Information Applications) 05-07 May 2009, Giens, France.

9   Languages

- Arabic: Native.
- French: Native.
- English: Fluent.

10   References

- Dr Mohamed Nasor, Dean of the College of Engineering and Information Technology, Ajman University, Ajman, United Arab Emirates, m.nasor@ajman.ac.ae
- Prof. Arafat Awajan, Former Vice President of Princess Sumaya University for Technology, Amman, Jordan, awajan@psut.edu.jo
- Prof. Qusai Shambour, Dean of the Faculty of Information Technology, Al-Ahliyya Amman University Amman, Jordan, q.shambour@ammanu.edu.jo
- Dr Frederic Bourcier, Head of Pedagogy at the CCI of Seine-et-Marne, Technology Teaching consular University UTEC, France, frederic.bourcier@seineetmarne.cci.fr
- Prof. Hervé Glotin, Honorary member of the Institut Universitaire de France, Systems and Information Sciences Lab LIS, Toulon University, France, glotin@univ-tln.fr

11   Teaching Statment

My primary goal as a teacher is to encourage and facilitate learning. To achieve this, I see myself as a traveler who is fascinated with his subject, which attracts my students to explore the discipline together.

 Due to our shared interest, I guess we will learn together too. Therefore, I expect that sometimes the students will lead me to new understandings, even if I control the teaching process. In this way, each of "my classes" becomes "our class". And from this perspective, I see my role as a transmitter of knowledge diminishing while that of mentor and coach becomes more important.

My teaching activities are based on the 4Cs of teaching: Concentrate on learning, Competence in the discipline, Comfort with my teaching style, and Compassion for my students. Thus, I find that teaching becomes both demanding and enriching. Personal communication with students is essential to my approach, so I practice an "open door" policy and encourage students to come in whenever they want. I also try to visit the lab teachings when I can, and I attach particular importance to the objectives related to the development of critical thinking and student autonomy, as well as respect for knowledge and the desire to learn.

Despite my attachment to these values and approaches, it's often difficult to convince students that learning does not stop within two hours of a lesson and that it does not equal the marks obtained on the exam.

I am particularly interested in extracting information from various types of data. As a result, my research primarily focuses on the intersections of five key topics :

- Machine Learning and Deep learning
- Artificial Intelligence
- Big Data
- Data Analytics
- Information extraction by content (audio, video, and text)

I believe that the information is generic; it plays a fundamental role in many areas such as medical, finance, and telecommunication. The goal of my research is to understand and define methods to extract the pattern from any type of data. I use theories from computer science and AI to develop a recommendation information system. This combination will have an interdisciplinary impact on science and engineering.

Nowadays, datasets sharing is democratized, where it is possible for anyone to apply the AI techniques on a public dataset, and this reveals the general interest in data science, which also motivates my career choice.