Academic Resume

Arwa Alaama

Professor, Computer Science Department

With an experience of 24 years in IT, coupled with a strong background in Computing, Al-Aama continues her pursuit in the participation of the technological advancement of her country, Saudi Arabia. She has a successful track record in the public, private, and academic sectors in digital transformation and enablement, cross-platform IT development, higher education, strategy formation, and consultancy.
She is also the first Saudi Female Professor in computing

Contact Information.

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Highest Degree.

2003, Doctor of Science, Computer Science, George Washington University, USA.

Academic and Professional Experiences.

1. **2015 - 2018**
   Digitization Consultant, Riyadh, A number of Saudi Ministries.
2. **2009 - 2017**
   Vice Mayor for Women Affairs,, Jeddah, The Jeddah Municipality.
3. **2009 - 2014**
   Associate Professor, King Abdul Aziz University ,KSA, Computer Science, College of Science -.
4. **2008 - 2017**
   Vice Mayor for IT Affairs,, Jeddah, The Jeddah Municipality.
5. **2006 - 2008**
   Head, College of Computing & Information Technology – KAU, the IS Deaprtment - Women's Section,.
6. **2006 - 2008**
   Vice Dean, King Abdul Aziz University,ksa, College of Computing and Information Technology,.
7. **2004 - 2006**
   Head of the Computer Science Department, King Abdul Aziz University,ksa, Women's Section, College of Science.
8. **2003 - 2009**
   Assistant Professor, King Abdul Aziz University ,KSA, Computer Science, College of Science -.
9. **2003 - 2008**
   IT Consultant,, ksa, The Savola Group,.
10. **1992 - 2003**
    Demonstrator, King Abdul Aziz University ,KSA, Computer Science, College of Science -.

Research Interests.

Accessibility, Digital Transformation, Smart Cities, Cybersecurity, Machine Learning, Human Computer Interaction.

Teaching Interests.

Cybersecurity, Web Technologies, Software and Systems, Smart Cities.

Certifications and Trainings.

1. Project Management Professional.
2. The Role of the CIO in the Networked Government, Boston University, in collaboration with Yesser Saudi e-Government Program..
3. Applying Knowledge Management: Principles and Practices, for Engineers, Scientists and Staff in Hi-Tech Companies. University of Oxford Continuing Education..
4. Successful Change Management,for Engineers, Scientists and Staff in Hi-Tech Companies. University of Oxford Continuing Education.
5. Effective Project Management,for Engineers, Scientists & Staff in Hi-Tech Companies. University of Oxford Continuing Education.
6. Activity-Based Learning in Higher Education.
7. Curriculum Review Workshop for Computer Education.
8. The Implementation and Assessment of Outcome-Based Curricula".
9. Corporate Ettiquette Workshop.The Protocol School of Washington. (8 hours).
10. User Interface Design that works for the Web.ACM CHI. (8 hours).
11. Web Development Bundle Course:Visual InterDev, ASP, SQL Server, FrontPage, HTML, JavaScript, VBScript. (120 hours).
12. Teaching Skills.American University of Cairo. (40 hours).
13. Student Evaluation and Testing Methods.American University of Cairo. (40 hours).
14. Data Science Bootcamp, Princess Noura University, Saudi Arabia.
15. Women CEO Leadership Program, GE Cotonville, USA.
16. Oxford Strategy Blockchain Program, Saiid School of Business, University of Oxford, UK.
17. Gartner CIO Academy Program, Saiid School of Business, University of Oxford, UK..
18. Global Change Agents Program, Harvard Kennedy School, Harvard University, USA.
19. MENAT Women CEO Leadership Program, GE Cotonville, New York, USA.
20. The Role of the CIO in the Networked Government, Boston University and the Saudi e-Government Program.
21. Machine Learning, Modern Technologies Expert House, King Abdulaziz University.
22. Blockchain, Modern Technologies Expert House, King Abdulaziz University.
23. Machine Learning, High Performance Computing Center, King Abdulaziz University.
24. Business Analytics Nanodegree, 3 Months, STC Academy and Udacity.
25. Work smarter, Not harder - Professional and Personal Time Management - University of California - Irvine (Online 1 week).
26. Protecting Business Innovations via Patent, The Hong Kong University of Science and Technology (4 weeks).
27. Digital Transformation certification. University of Virginia and Boston Consulting Group (BCG). (4 weeks).
28. Emerging Technologies, Disruption, and AI, university of Illinois at Urbana Champaign, 4 weeks.

Social, Scientific and Professional Affiliation.

1. 2021-Present, Senior Consultant and Member, Digital Economy Center.
2. 2019-Present, Founding Member, Raqmn: Cooperative Association for Digital Transformation.

Last Profile Update: May   12, 2024

3. 2023-, Board Member, Raqmn - Cooperative Association for Digital Transformation.

Excellence Awards and Patents.

1. 2013, International, CIO Award: CIO Business Leader of the Year, IDC.
2. 2009, Interior, Research Excellence Award 1, King Abdulaziz University.
3. 2010, Interior, Research Excellence Award, King Abdulaziz University.
4. 2008, Interior, Research Excellence Award, King Abdulaziz University.
5. 2009, Interior, Research Excellence Award 2, King Abdulaziz University.
6. 2010, Interior, The National Saudi Achievement Award for Digitization, Ministry of Communication and Information Technology.
7. 2015, Interior, Saudi Women Leadership Award - in Government, The Arab Women Leadership Award Association.
8. 2015, International, Informatics Expert Award, The Arab Towns Organization.
9. 2003, International, International research award in Computer science, Microsoft / ACM.
10. 2012, International, The Golden Medal of Arab Leaders (in the Field of Initiatives Excellence), Arab Organization for Administrative Development - Arab League and Coronation Academy- Excellence Awards sponsored by His Highness The Crown Prince of Dubai Sheikh Hamdan bin Mohammed bin Rashid Al Maktoum, Dubai,.
11. 2007, Interior, Most Distinguished Academic Professor Award, Microsoft Arabia.
12. 2022, Interior, First Place, Makkah Electronic Portal Award for Research and Innovation, Artificial Intelligence Innovation Track, Emirate of Makkah Province and King Abdulaziz University.
13. 2022, Interior, Third Place, Makkah Electronic Portal Award for Research and Innovation, Innovation in Tourism Track, õEmirate of Makkah Province and King Abdulaziz University.

Funded Projects.

1. 2007, The Electronic College, King Abdulaziz University, Initiative for digitizing the services of a College.
2. 2002, Design of Interfaces in Safety Critical Systems, Georgetown University Medical Center

Publications.

1. Rana Khalid Alzahrani, Arwa Yousuf Al-Aama, "A Framework To Improve The Accessibility Of Social Media Account Content", Universal Access In The Information Society, 2024.
   DOI: 10.1007/s10209-024-01093-3

2. Wafaa Abu Shamlah Hakami, Arwa Yousuf Al-Aama, "A Framework To Improve Web Form Accessibility For The Visually Impaired.", Ieee Access, vol: 11, pp. 123989-124003, 2023.
   DOI: 10.1109/ACCESS.2023.3330370

3. Rihab Fahd Al-Mutawa, Arwa Yousef Al-Aama, "User Opinion Prediction For Arabic Hotel Reviews Using Lexicons And Artificial Intelligence Techniques", Applied Sciences, vol: 13, pp. 5985, 2023.
   DOI: 10.3390/app13105985

4. Rasha Saleh Al-Malki, Arwa Yousuf Al-Aama, "Arabic Captioning For Images Of Clothing Using Deep Learning", Sensors, vol: 23, pp. 3783, 2023.
   DOI: 10.3390/s23083783

5. Alsulami, M.M. and Al-Aama, A.Y., "An Empirical Study To Determine The Impact Of Demographic Features On Users&Rsquo; Perceptions Of Unwanted Messages In Online Social Network Services.", Ficc, 2023.

6. Hakami, W. A. & Al-Aama A.Y.A., "Accessibility Of Saudi Delivery Applications For Visually Impaired Users", Eimj, ÇáãÌáÉ ÇáÇáßÊÑæäíÉ ÇáÔÇãáÉ ãÊÚÏÏÉ ÇáÊÎÕÕÉ. Vol. 50, Aug. 22., 2022.

7. Mashael M. Alsulami, Arwa Yousef, "Sentifilter: A Personalized Filtering Model For Arabic Semi-Spam Content Based On Sentimental And Behavioral Analysis", International Journal Of Advanced Computer Science And Applications, vol: 11, 2020.
   DOI: 10.14569/IJACSA.2020.0110218

8. Mashael M. Alsulami, Arwa Yousef Al-Aama, "Employing Behavioral Analysis To Predict User Attitude Towards Unwanted Content In Online Social Network Services: The Case Of Makkah Region In Saudi Arabia", Computers, vol: 9, pp. 34, 2020.
   DOI: 10.3390/computers9020034

9. Mashael M. Alsulami, Arwa Y. Al-Aama, "Exploring User"S Perception Of Storage Management Features In Instant Messaging Applications: A Case On Whatsapp Messenger", 2019 2nd International Conference On Computer Applications & Information Security (Iccais), pp. 1-6, 2019.
   DOI: 10.1109/CAIS.2019.8769478

10. Arwa Y. Al-Aama, "A Smarter Jeddah", Smart Societies: Infrastructure, Technologies &Amp; Applications Conference (Scita). 27-29 November 2017. King Abdulaziz University, Jeddah, Saudi Arabia, 2017.

11. Rihab Fahd, Arwa Yousuf, "Linked Open Data Life Cycle", International Journal Of Computer Applications, vol: 175, pp. 34-39, 2017.
    DOI: 10.5120/ijca2017915489

12. Arwa Yousuf Al Aama, "The Use Of Twitter To Promote E-Participation: Connecting Government And People", International Journal Of Web Based Communities, vol: 11, pp. 73, 2015.
    DOI: 10.1504/IJWBC.2015.067082

13. Arwa Yousuf Al-Aama, "Technology Knowledge Management (Tkm) Taxonomy", Vine, vol: 44, pp. 2-21, 2014.
    DOI: 10.1108/VINE-12-2012-0052

14. Arwa Yousuf Al-Aama, "Using Balanced Scorecards To Manage It Strategies In Public Organizations: The Case Of Jeddah Municipality", Engineering Management Research, vol: 2, 2013.
    DOI: 10.5539/emr.v2n1p111

Publications.

15. Arwa Yousuf Al Aama, "E-Procurement Vs. Online Procurement: A Means To Increase Transparency In A Saudi Government Organisation: The Case Of The Jeddah Municipality", International Journal Of Procurement Management, vol: 5, pp. 765, 2012.
    DOI: 10.1504/IJPM.2012.049714

16. Arwa Alaama, A.Y, "Middle East Cio Perspectives. Idc Middle East Cio Summit 2012: Driving The Agenda For Business Success", , 2012.

17. Arwa Alaama, A.Y, "From A Tiny Incubator To A World Class Award Winning It Team: The Case Of The Ladies It Team At The Jeddah Municipality", Women In Engineering, Science, And Technology Forum: A Better Planet. The 6th Ieee Gcc Conference, Dubai, 2011.

18. Arwa Alaama, A.Y, "Evaluating Saudi Municipal Portal Sophistication", Asian Transactions On Science And Technology, vol: Volume: 01, Issue: 05, 2011.

19. Arwa Alaama, A.Y, "Opening Doors To Unconventional Industries And Navigating Career Paths", Panelist: 2nd Annual Saudi Women In Leadership Forum. Under The Patronage Of Hrh Princess Adela Bint Abdallah. Riyadh, 2011.

20. Arwa Alaama, "The Current State And Future Of E-Government In Saudi Arabia. Al-Aama", King Saud University Conference, 2010.

21. Arwa Alaama, "The Evolvement Of E-Government And The Transformation Of Citizens.Al-Aama", A.Y.The Bilsim Zirvesi '10 And Egovernment Forum Conference, 2010.

22. Arwa Alaama, "The Process Of Transformation Into An Information Society And The E-Government Applications Of The Oic Countries. Al-Aama", International Business Forum (Ibf) Congress & The 13th Musiad International Fair Conference, 2010.

23. Arwa Alaama, "Government Entrepreneurial Initiatives. Al-Aama", Under The Patronage Of Hrh Princess Lulwah Al-Faisal, Jeddah Conference, 2010.

24. Nouf M. Al-Barakati, Arwa Y. Al-Aama, "The Effect Of Visualizing Roles Of Variables On Student Performance In An Introductory Programming Course", Acm Sigcse Bulletin, vol: 41, pp. 228, 2009.
    DOI: 10.1145/1595496.1562949

25. Hind O. Al Misbahi, Arwa Y. Al Aama, "Improving Scalability With The Use Of The Overlay Multicast Protocol (Omp)", International Journal Of Internet Protocol Technology, vol: 4, pp. 182, 2009.
    DOI: 10.1504/IJIPT.2009.028657

26. Enas F. Khairullah, Arwa Y. Al-Aama, "Improving Accuracy Of Context Aware Data Replication In Mobile Computing Application", The 7th International Conference, pp. 498, 2009.
    DOI: 10.1145/1821748.1821844

27. Al-Barakati, N. M, Arwa Alaama, A.Y, "The Effect Of Visualizing Roles Of Variables On Student Performance In An Introductory Programming Course", In Proceedings Of The 14th Annual Acm Sigcse Conference On Innovation And Technology In Computer Science Education, Iticse '09.Paris, July 6–9, 2009. Acm, New York, Ny, pp. 228-232, 2009.

28. Khairallah, E, Arwa Alaama, A.Y, "Improving Accuracy Of Context Aware Data Replication In Mobile Computing Application", Acm Bwcca-2009, The Fourth International Workshop On Broadband And Wireless Computing, Communication And Applications, Kuala Lampur, 2009.

29. Arwa Al-Aama, "A Proposed Framework For The Development Of Web- Based Systems For The Service Of Muslim Pilgrims", Journal Of King Abdulaziz University-Science, vol: 20, pp. 55-75, 2008.
    DOI: 10.4197/Sci.20-2.5

30. Hanan S. Al-Ghamdi, Arwa Y. Al-Aama, "Drp-Drp: Data Replication Protocol For Disaster Recovery Planning", 2008 International Conference On Innovations In Information Technology (Iit), pp. 228-232, 2008.
    DOI: 10.1109/INNOVATIONS.2008.4781630

Publications.

31. Arwa Alaama, "Service Learning In A Women'S Web Development Course At King Abdul Aziz University", Al-Aama, A. Cybersitizenship: Vistas & Visions, Learning & Technology Symposium, Effat College, Jeddah, Saudi Arabia, (Refereed Paper), 2008.

32. Arwa Alaama, "The Corporate Website Scorecard: An Evaluation Tool For Publicly Listed Corporations", , 2008.

33. Arwa Alaama, "The Electronic College: A Study Of The Effectivenessof Electronic Management Systems Within Colleges", , vol: 1(2), 2008.

34. Arwa Alaama, "Communities Of Practice For Teaching And Learning, Cybersitizenship: Vistas & Visions, Learning & Technology Symposium, Effat College", , 2008.

35. Hind O. Al-Misbahi, Arwa Y. Al-Aama, "The Overlay Multicast Protocol (Omp): A Proposed Solution To Improving Scalability Of Multicasting In Mpls Networks", The 2nd International Conference On Wireless Broadband And Ultra Wideband Communications (Auswireless 2007), pp. 79-79, 2007.
DOI: 10.1109/AUSWIRELESS.2007.81

36. J. Collmann, A.-L. Silvestre, "Building A Security Capable Organization: A Workshop", Proceedings. Pacific Medical Technology Symposium, pp. 2-11, 1998.
DOI: 10.1109/PACMED.1998.767874