CURRICULUM VITAE
Shadi Mahmoud Faleh AlZu'bi

Associate Professor at Department of Computer Science

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1. Personal Data

Date of Birth: 23 /05 / 1984

Nationality: Jordanian

2. Education

● Ph.D. (Electronic and Computer / Computer Science) 2011, Brunel University, West London, United Kingdom

● M.Sc. (Telecommunication Networks Management) 2008, University of Technology-Sydney. Sydney, Australia

● B.Sc. (Computer and Network Engineering) 2007, Jordan University of Science and Technology. Jordan

3. Ph.D. Dissertation

"Hybrid Multi-Resolutional Statistical Approaches for Medical Volume Segmentation"**,** Brunel University - London, London, UK.

4. Employment

4.1. Non-Academic Positions

4.1.1. Boss Group for Trailers Manufacturing - Team Manager - Ramtha, Jordan
February 2005 – January 2007 [Part Time]
The company got a small group of software and office employees (rather than handy men), I used to be responsible for the network connections and as a manager of this team.

4.1.2. Middle East Gate Magazine - Programmer - Amman, Jordan
September 2006 – January 2007 [Part Time]
A member in a programming team

4.1.3. Royal Jordanian Airlines - Computer Networking Trainee - Amman, Jordan
January 2007 – July 2007
A trainee at the HelpDesk Team, responsible for Airline systems and the network connections between offices and branches.

4.2. Academic Positions

4.2.1. Jordan University of Science and Technology - Lecturer - Ramtha, Jordan
June 2011 – June 2015 [Part Time]
Part-Time Lecturer at Computer Science department.

4.2.2. Al Zaytoonah University of Jordan (Multimedia) - Assistant Professor
Amman, Jordan
September 2014 – September 2016
Assistant Professor at the Multimedia Systems department

4.2.3. Al Zaytoonah University of Jordan (Computer) - Assistant Professor
Amman, Jordan
September 2012 – September 2014 / September 2016 – *current*
Assistant Professor at the computer science department

QF11/0110 - 3.0E	Curriculum Vitae Form - Procedures of Faculty Transfer and Promotion

5. Research Interests

Dr. AlZu'bi main current research interests focus on the latest technologies in image processing including Medical imaging, 3D volume processing, medical imaging computation acceleration using parallel processing. On the other hand, Dr. AlZu'bi has a fingerprint in in various state of the art data science topics including machine learning.

6. Teaching Experience

6.1. Undergraduate Courses
6.1.1. Discrete Mathematics
6.1.2. Programming Concepts
6.1.3. Introduction into Computer Science
6.1.4. Digital Logic Design
6.1.5. Computer organization
6.1.6. Computer Algorithms
6.1.7. Data Structures
6.1.8. Operating Systems
6.1.9. Image Processing
6.1.10. Introduction into Multimedia Systems
6.1.11. Multimedia Systems – Voice
6.1.12. Multimedia Systems – Digital Imaging
6.1.13. Special Topics in Computer Networks
6.1.14. Special Topics in Computer Science
6.1.15. Special Programming Languages

6.2. Graduate Courses
6.2.1. Advanced Operating Systems
6.2.2. Advanced Digital Image Processing

7. Membership of Committees

7.1.1. Member of the Scientific and Social Committees in the Department of Computer Science / Faculty of Science and IT (2012-Now).
7.1.2. Member in the Jordan Engineers association

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8. <u>Skills</u>

8.1. Have experience in Quality Assurance at Universities. Part of the responsible committee at Zaytoonah University of Joradan since 2012 till current

8.2. Professional in image processing areas especially medical and security areas

8.3. Excellent in managing and forming research teams based on the hottest research areas

8.4. Excellent in working under pressure

8.5. Excellent on employing AI ideas in real life for research challenges.

8.6. Programming:

        Matlab   : Professional

        Visual Studio.Net   : Good

        JAVA   : Good

        ASP.Net   : Good

8.7. Excellent in the modern medical informatics systems

8.8. Excellent in teaching skills

8.9. Very interesting in team work

8.10. Very good social relations

8.11. Speak, Read, and Write perfectly English and Arabic.

9. <u>Publications</u>

9.1. *Journal Papers:*

9.1.1. **Shadi AlZu'bi** *and Abbes Amira. 2010. 3D Medical Volume Segmentation Using Hybrid Multiresolution Statistical Approaches. Advances in Artificial Intelligence 2010, Article ID 520427 (June 2010), 15 pages. DOI=https://doi.org/10.1155/2010/520427.*

9.1.2. **Shadi AlZu'bi**, *Naveed Islam, and Maysam Abbod. 2011. Multiresolution analysis using wavelet, ridgelet, and curvelet transforms for medical image segmentation. Journal of Biomedical Imaging 2011, Article 4 (January 2011), 18 pages. DOI=http://dx.doi.org/10.1155/2011/136034*

9.1.3. **Shadi AlZu'bi**, *Al-Ayyoub, M., Jararweh, Y., Shehab, M. A., & Gupta, B. B. 2018. Accelerating 3D medical volume segmentation using GPUs. Multimedia Tools and Applications, Volume 77(4), pages 4939-4958. ISSN 1573-7721. https://doi.org/10.1007/s11042-016-4218-0*

9.1.4. **Shadi AlZu'bi**, *Mahmoud Al-Ayyoub, Yaser Jararweh, Mohammed A. Shehab. 2017. Enhanced 3D segmentation techniques for reconstructed 3D medical volumes: Robust and Accurate Intelligent System. Procedia Computer Science. Volume 113 (c), Pages 531-538. ISSN 1877-0509. DOI=https://doi.org/10.1016/j.procs.2017.08.318.*

9.1.5. **Shadi AlZu'bi,** *Raddad Abooraig, Tarek Kanan, Bilal Hawashin, Mahmoud Al Ayoub, Ismail Hmeidi. 2018. Automatic categorization of Arabic articles based on their political orientation. Digital Investigation, Volume 25, Pages 24-41. ISSN 1742-2876. DOI=https://doi.org/10.1016/j.diin.2018.04.003. (http://www.sciencedirect.com/science/article/pii/S1742287618300203)*

9.1.6. **Shadi AlZu'bi**, *Mohammad Shehab, Mahmoud Al-Ayyoub, Yaser Jararweh, and Brij Gupta. "Parallel Implementation for 3D Medical Volume Fuzzy Segmentation", Pattern Recognition Letters, journal homepage: www.elsevier.com (2018).*

9.1.7. *Al-Ayyoub, M.,* **Shadi AlZu'bi***, Jararweh, Y., Shehab, M.A. and Gupta, B.B., 2018. Accelerating 3D medical volume segmentation using GPUs. Multimedia Tools and Applications, 77(4), pp.4939-4958.*

9.1.8. **Shadi AlZu'bi***, Jararweh, Y., Al-Zoubi, H., Elbes, M., Kanan, T. and Gupta, B., 2018. Multi-orientation geometric medical volumes segmentation using 3D multiresolution analysis. Multimedia Tools and Applications, pp.1-26.*

9.1.9. *Al-Zoubi, H.,* **Shadi AlZu'bi***, Stamatakis, S. and Almimi, H., 2018. Ruled Surfaces of Finite Chen-Type. Journal for Geometry and Graphics, 22(1), pp.015-020.*

9.1.10. **Shadi AlZu'bi***, Hawashin, B., Mujahed, M., Jararweh, Y. and Gupta, B.B., 2019. An efficient employment of internet of multimedia things in smart and future agriculture. Multimedia Tools and Applications, pp.1-25.*

9.1.11. *Obeidat, I.M., Mughaid, A. and* **Shadi AlZu'bi***, 2019. A Secure Encrypted Protocol for Clients' Handshaking in the Same Network. International Journal of Interactive Mobile Technologies, 13(5).*

9.1.12. *Hawashin, B.,* **Shadi AlZu'bi***, Kanan, T. and Mansour, A., 2019. An efficient semantic recommender method forArabic text. The Electronic Library, 37(2), pp.263-280.*

9.1.13. *Elbes, M.,* **Shadi AlZu'bi***, Kanan, T., Al-Fuqaha, A. and Hawashin, B., 2019. A survey on particle swarm optimization with emphasis on engineering and network applications. Evolutionary Intelligence, pp.1-17.*

9.1.14. **Shadi AlZu'bi***, AlQatawneh, S., ElBes, M. and Alsmirat, M., Transferable HMM probability matrices in multi‑ orientation geometric medical volumes segmentation. Concurrency and Computation: Practice and Experience, p.e5214.*

9.1.15. *Muhairat, M.,* **Shadi AlZu'bi***, Hawashin, B., Elbes, M. and Al-Ayyoub, M., 2020. An Intelligent Recommender System Based on Association Rule Analysis for Requirement Engineering. Journal of Universal Computer Science, 26(1), pp.33-49.*

9.1.16. *Elbes, M., Alrawashdeh, T., Almaita, E.,* **Shadi AlZu'bi** *and Jararweh, Y., A platform for power management based on indoor localization in smart buildings using long short‑ term neural networks. Transactions on Emerging Telecommunications Technologies, p.e3867.*

9.1.17. **Shadi AlZu'bi,** *2020. Secure 3D medical Imaging. arXiv preprint arXiv:2010.03367.*

9.1.18. *Alsmadi, A.,* **Shadi AlZu'bi***, Al-Ayyoub, M. and Jararweh, Y., 2020. Predicting Helpfulness of Online Reviews. arXiv preprint arXiv:2008.10129.*

9.1.19. *Alasal, S.A., Alsmirat, M., Baker, Q.B. and* **Shadi AlZu'bi***, 2020. Lumbar disk 3D modeling from limited number of MRI axial slices. International Journal of Electrical and Computer Engineering, 10(4), p.4101.*

9.1.20. **Shadi AlZu'bi***, Hawashin, B., Mughaid, A. and Baker, T., 2020. Efficient 3D medical image segmentation algorithm over a secured multimedia network. Multimedia Tools and Applications, pp.1-19.*

9.1.21. *Hawashin, B., Aqel, D.,* **Shadi AlZu'bi** *and Elbes, M., 2020. Improving recommender systems using co-appearing and semantically correlated user interests. Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science), 13(2), pp.240-247.*

9.1.22. *Elbes, M., Alrawashdeh, T., Almaita, E.,* **Shadi AlZu'bi** *and Jararweh, Y., 2020. A platform for power management based on indoor localization in smart buildings using long short‑ term neural networks. Transactions on Emerging Telecommunications Technologies, p.e3867.*

9.1.23. *Muhairat, M.,* **Shadi AlZu'bi***, Hawashin, B., Elbes, M. and Al-Ayyoub, M., 2020. An Intelligent Recommender System Based on Association Rule Analysis for Requirement Engineering. J. UCS, 26(1), pp.33-49.*

9.1.24. **Shadi AlZu'bi***, Hawashin, B., Mujahed, M., Jararweh, Y. and Gupta, B.B., 2019. An efficient employment of internet of multimedia things in smart and future agriculture. Multimedia Tools and Applications, 78(20), pp.29581-29605.*

9.2. Conferences

9.2.1. *Shadi AlZu'bi, Naveed Islam and Maysam Abbod, "3D Multiresolution Analysis for Reduced Features Segmentation of Medical Volumes Using PCA," 2010 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS 2010), issue Dec 2010, pp. 604-607, ISBN: 978-1-4244-7454-7 Kuala Lumpur, Malaysia, 2010.*

9.2.2. *Shadi AlZu'bi, Naveed Islam and Maysam Abbod, "Enhanced Hidden Markov Models for Accelerating Medical Volumes Segmentation," The 6th 2011 IEEE GCC Conference and Exhibition (IEEE GCC), issue Feb 2011, pp. 287-290, ISBN: 978-1-61284-118-2, Dubai, UAE, 2011.*

9.2.3. *Hamideh Rezaee, Ali Aghagolzadeh, M. Hadi Seyedarabi and Shadi AlZu'bi, "Tracking and Occlusion Handling in Multi- Sensor Networks by Particle Filter," The 6th 2011 IEEE GCC Conference and Exhibition (IEEE GCC), issue Feb 2011, pp. 397-400, ISBN: 978-1-61284-118-2, Dubai, UAE, 2011.*

9.2.4. *Shadi AlZu'bi, Saeed Sherif and Maysam Abbod, "Efficient Implementation and Evaluation of Wavelet Packet for Medical Image Segmentation," 2011 IEEE International Workshop on Medical Measurements and Applications Proceedings (MeMeA), Issue May 2011, pp. 619-622, ISBN: 978-1-4244-9336-4, Bari, Italy, May, 2011.*

9.2.5. *Shadi AlZu'bi Saeed Sherif, Navid Islam and Maysam Abbod, "Multi-Resolution Analysis using Curvelet and Wavelet Transforms for Medical Imaging," 2011 IEEE International Workshop on Medical Measurements and Applications Proceedings (MeMeA), Issue May 2011, pp. 188-191, ISBN: 978-1-4244-9336-4, Bari, Italy, May, 2011.*

9.2.6. *Yaser Jararweh, Salim Hariri and Shadi AlZu'bi, " An Optimal Multi-Processor Allocation Algorithm for High Performance GPU Accelerators," 2011 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), issue Dec 2011, pp. 1-6, ISBN: 978-1-4577-1083-4, Amman, Jordan, Dec, 2011.*

9.2.7. *Shadi AlZu'bi and Yaser Jararweh, " Medical Volume Segmentation Using 3D Multiresolution Analysis," 8th IEEE International Conference on Innovations in Information Technology (IIT '12), AL AIN, UAE, March 2012.*

9.2.8. *Shadi AlZu'bi and Yaser Jararweh, " Reduced Features Medical Volume Segmentation Using 3D Multiresolution Analysis and PCA," The 3rd International Conference on Multimedia Computing and Systems (ICMCS'12), Tangier, Morocco, May 2012.*

9.2.9. *Shadi AlZu'bi and Yaser Jararweh, " Exploiting GPUs for Compute Intensive Medical Applications," The 3rd International Conference on Multimedia Computing and Systems (ICMCS'12), Tangier, Morocco, May 2012.*

9.2.10. *Shadi AlZu'bi and Abbes Amira, "Efficient Implementation of Wavelet Packet for Medical Image Segmentation and Analysis," The second SED research student conference (RESCON 2009), Brunel University-West London, June, 2009.*

9.2.11. *Shadi AlZu'bi and Maysam Abbod, "3D Multiresolution Analysis for Segmenting Reduced Features Medical Volumes Using PCA," The Third SED research student conference (RESCON 2010), Brunel University-West London, June, 2010.*

9.2.12. *Shadi AlZu'bi, Ansam Abu-Dalo, Yaser Jararweh, Mahmoud Al-Ayyoub and Mohammad Alsmirat, "A GPU-Based Breast Cancer Detection System Using Fuzzy C-Means Clustering Algorithm," 5th international conference on Multimedia Computing and Systems (ICMCS'16), Marrakesh, Morocco*

9.2.13. *Shadi AlZu'bi, Moahmmed A. Shehab, Mahmoud Al-Ayyoub, Elhadj Benkhelifa, Yaser Jararweh, "Parallel implementation of FCM-based volume segmentation of 3D images", Computer Systems and Applications (AICCSA) 2016 IEEE/ACS 13th International Conference of, pp. 1-6, 2016, ISSN 2161-5330.*

9.2.14. *Shadi AlZu'bi, Bilal Hawashin, Mohammad ElBes, and Mahmoud Al-Ayyoub, "A Novel Recommender System based on Apriori Algorithm for Requirements Engineering," The Fifth International Conference on Social Networks Analysis, Management and*

Security(SNAMS-2018), In Press. Valencia, Spain. Will be available online at ieeexplore.ieee.org.

9.2.15. ***Shadi AlZu'bi***, *Sokyna Al-Qatawneh and Mohammad Alsmirat, "Transferable HMM Trained Matrices for Accelerating Statistical Segmentation Time," The Fifth International Conference on Social Networks Analysis, Management and Security(SNAMS-2018), In Press. Valencia, Spain. Will be available online at ieeexplore.ieee.org.*

9.2.16. *Hawashin, B., Mansour, A., Abukhait, J., Khazalah, F., **Shadi AlZu'bi**, Kanan, T., Obaidat, M. and Elbes, M., 2019, April. Efficient texture classification using independent component analysis. In 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 544-547). IEEE.*

9.2.17. ***Shadi AlZu'bi***, *Mughaid, A., Hawashin, B., Elbes, M., Kanan, T., Alrawashdeh, T. and Aqel, D., 2019, April. Reconstructing Big Data Acquired from Radioisotope Distribution in Medical Scanner Detectors. In 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 325-329). IEEE.*

9.2.18. *Elbes, M., Almaita, E., Alrawashdeh, T., Kanan, T., **Shadi AlZu'bi** and Hawashin, B., 2019, April. An indoor localization approach based on deep learning for indoor location-based services. In 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 437-441). IEEE.*

9.2.19. *Kanan, T., Sadaqa, O., Aldajeh, A., Alshwabka, H., **Shadi AlZu'bi**, Elbes, M., Hawashin, B. and Alia, M.A., 2019, April. A review of natural language processing and machine learning tools used to analyze arabic social media. In 2019 IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology (JEEIT) (pp. 622-628). IEEE.*

9.2.20. *Aqel, D., **Shadi AlZu'bi** and Hamadah, S., 2019, June. Comparative Study for Recent Technologies in Arabic Language Parsing. In 2019 Sixth International Conference on Software Defined Systems (SDS) (pp. 209-212). IEEE.*

9.2.21. *Hawashin, B., Aqel, D., **Shadi AlZu'bi** and Jararweh, Y., 2019, June. Novel weighted interest similarity measurement for recommender systems using rating timestamp. In 2019 Sixth International Conference on Software Defined Systems (SDS) (pp. 166-170). IEEE.*

9.2.22. ***Shadi AlZu'bi***, *Alsmadiv, A., AlQatawneh, S., Al-Ayyoub, M., Hawashin, B. and Jararweh, Y., 2019, October. A brief analysis of amazon online reviews. In 2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS) (pp. 555-560). IEEE.*

9.2.23. ***Shadi AlZu'bi***, *Badarneh, O., Hawashin, B., Al-Ayyoub, M., Alhindawi, N. and Jararweh, Y., 2019, October. Multi-Label Emotion Classification for Arabic Tweets. In 2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS) (pp. 499-504). IEEE.*

9.2.24. ***Shadi AlZu'bi***, *Aqel, D., Mughaid, A. and Jararweh, Y., 2019, October. A Multi-Levels Geo-Location based Crawling Method for Social Media Platforms. In 2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS) (pp. 494-498). IEEE.*

9.2.25. *Mughaid, A., Obeidat, I., Hawashin, B., **Shadi AlZu'bi** and Aqel, D., 2019, October. A smart Geo-Location Job Recommender System Based on Social Media Posts. In 2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS) (pp. 505-510). IEEE.*

9.2.26. *Ramadan, R., Alqatawneh, S., Ahalaiqa, F., Abdel-Qader, I., Aldahoud, A. and **Shadi AlZu'bi**, 2019, October. The Utilization of WhatsApp to Determine the Obsessive-Compulsive Disorder (OCD): A Preliminary Study. In 2019 Sixth International Conference on Social Networks Analysis, Management and Security (SNAMS) (pp. 561-564). IEEE.*

9.2.27. ***Shadi AlZu'bi***, *Alsmirat, M., Al-Ayyoub, M. and Jararweh, Y., 2019, November. Artificial Intelligence Enabling Water Desalination Sustainability Optimization. In 2019 7th International Renewable and Sustainable Energy Conference (IRSEC) (pp. 1-4). IEEE.*

9.2.28. Alsmadi, A., **Shadi AlZu'bi**, Hawashin, B., Al-Ayyoub, M. and Jararweh, Y., 2020, April. *Employing Deep Learning Methods for Predicting Helpful Reviews. In 2020 11th International Conference on Information and Communication Systems (ICICS) (pp. 007-012). IEEE.*

9.2.29. **Shadi AlZu'bi**, Hawashin, B., Mughaid, A. and Jararweh, Y., 2020, April. *Whats Trending? An Efficient Trending Research Topics Extractor and Recommender. In 2020 11th International Conference on Information and Communication Systems (ICICS) (pp. 191-196). IEEE.*

9.2.30. Lafi, M., Hawashin, B. and **Shadi AlZu'bi**, 2020, April. *Maintenance Requests Labeling Using Machine Learning Classification. In 2020 Seventh International Conference on Software Defined Systems (SDS) (pp. 245-249). IEEE.*

9.2.31. Hawashin, B., **Shadi AlZu'bi**, Mughaid, A., Fotouhi, F. and Abusukhon, A., 2020, April. *An Efficient Cold Start Solution for Recommender Systems Based on Machine Learning and User Interests. In 2020 Seventh International Conference on Software Defined Systems (SDS) (pp. 220-225). IEEE.*

9.2.32. Abusukhon, A. and **Shadi AlZu'bi**, 2020, April. *New Direction of Cryptography: A Review on Text-to-Image Encryption Algorithms Based on RGB Color Value. In 2020 Seventh International Conference on Software Defined Systems (SDS) (pp. 235-239). IEEE.*

9.2.33. **Shadi AlZu'bi** and Jararweh, Y., 2020, April. *Data Fusion in Autonomous Vehicles Research, Literature Tracing from Imaginary Idea to Smart Surrounding Community. In 2020 Fifth International Conference on Fog and Mobile Edge Computing (FMEC) (pp. 306-311). IEEE.*

9.2.34. AlKhatib, A.A., Sawalha, T. and **Shadi AlZu'bi**, 2020, April. *Load Balancing Techniques in Software-Defined Cloud Computing: an overview. In 2020 Seventh International Conference on Software Defined Systems (SDS) (pp. 240-244). IEEE.*

9.3. Invited Poster Conferences

9.3.1. **Shadi AlZu'bi** and Abbes Amira, "Multiresolution statistical Approaches for 3D medical Imaging," The graduate school research student poster conference, Brunel University-West London, May, 2009.

9.3.2. **Shadi AlZu'bi** and Abbes Amira, "Efficient Implementation of Wavelet Packet for Medical Image Segmentation and Analysis," The second SED research student poster conference (RESCON 2009), Brunel University-West London, June, 2009.

9.3.3. **Shadi AlZu'bi**, "Multiresolution Analysis for Medical Image Segmentation," The 6th 2011 IEEE GCC Conference and Exhibition (IEEE GCC), Dubai, UAE, 2011.

10. Others

- Awarded *two* vice chancellor prizes in Brunel University which has been given to five research students quarterly in the academic session 2010 / 2011.

- *Enter the 2011 IEEE Gulf Cooperation Council student conference poster competition, and has been chosen with 14 other students to present our novel work in the conference which has been held in Dubai from 19 to 22 of FEB/2011.*

- I supervise a multiple master student projects in several universities and examine many of others as well

- I am doing some volunteer work to help the special needs people to encourage them to be engaged in the national committee. This is by illuminating some successful study cases in a pre-scheduled events and public places.