Ra'Fat A. AL-Msie'Deen

Curriculum Vitae

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PERSONAL DETAILS

Nationality	Jordanian
Specialization	Computer Science - Software Engineering
Place of Birth	Tafila, Jordan
Marital Status	Married
Home Address	Khalda - Amman, Jordan

BIOGRAPHY

Ra'Fat Al-Msie'Deen is an associate professor in the software engineering department at Mutah University since 2014. He received his PhD in software engineering from the Université de Montpellier, Montpellier - France, in 2014. He received his MSc in information technology from the University Utara Malaysia, Kedah - Malaysia, in 2009. He got his BSc in computer science from Al-Hussein Bin Talal University, Ma'an - Jordan, in 2007. His research interests include software engineering, requirements engineering, software product line engineering, feature identification, word clouds, and formal concept analysis. He has several publications in international journals, conferences, and workshops. He taught several courses in computer science and software engineering. Dr. Al-Msie'Deen aimed to utilize his background and skills in the academic and professional fields to enhance students expertise in developing software systems.

EDUCATION

PhD in Computer Science June, 2014

University of Montpellier, Montpellier - France

Specialization: Software Engineering

Topics: Software Engineering and Software Product Line Engineering.

Master of Science – Information Technology March, 2009

University Utara Malaysia, Kedah – Malaysia

Topics: Requirements Model, Systems Analysis and Design, and Advanced Programming.

GPA: 3.85/4

Bachelor of Computer Science September, 2007

Al-Hussein Bin Talal University, Ma'an – Jordan

GPA: 72.94%

The General Secondary Education Certificate August, 2004

Grandel Secondary School, Tafila - Jordan
Scientific Stream - GPA: 76.9%

MANAGERIAL EXPERIENCE

Head of the Department of Computer Science September, 2020 - September, 2021
Head of the Department of Computer Science, Faculty of Information Technology at Mutah University.
– Bachelor and Master in Computer Science (thesis & non-thesis comprehensive exam track).

Head of the Department of Scientific Majors September, 2021 - September, 2022
Head of the Dept. of Scientific Majors, Deanship of Academic affairs at Military Wing of Mutah Univ.
– Scientific Majors are Information Security, Computer Science, and Mathematics.

ACADEMIC AND TEACHING EXPERIENCE

Associate Professor September 22, 2019 – Present
Mutah University, Karak - Jordan
👉 Taught Courses: Bachelor and Master Levels
Bachelor level: Software Engineering of Web Applications, Software Modelling, Software Engineering Fundamentals, Requirements Engineering, Software Documentation, Software Architecture and Design, Internet Programming, Special Topics in Software Engineering, Object-Oriented Programming, Visual Programming, Computer Ethics and Communication Skills, Discrete Structures for Computing, Fundamentals of Computer Architecture, Information Systems Management and Graduation Project.
Master Level: Advanced Software Engineering.

Assistant Professor February 24, 2016 – September 22, 2019
Mutah University, Karak - Jordan
👉 Taught Courses: Bachelor Level
Software Engineering, Computer Organization and Design, Introduction to Information Technology, Database Systems, Internet Programming, Special Topics in Computer Science, Communication Skills, Algorithms, Systems Analysis and Design, Theory of Computation, and Logic Circuits Design.

Full-Time Lecturer September 22, 2014 – February 24, 2016
Mutah University, Karak - Jordan
👉 Taught Courses: Bachelor Level
Decision Support Systems, Operating Systems, E-Commerce Programming, Computer Skills (I), and Computer skills (II) - Visual Basic.

Full-Time Lecturer March, 2009 – December, 2011
Tafila Technical University, Tafila – Jordan
👉 Taught Courses: Bachelor Level
Computer Graphics, Logic Circuits Design, Computer Skills (1), Computer Skills (2), International Computer Driving License "ICDL", Java Language, C++ Language, Database, Information Retrieval Systems, Management Information Systems, Internet Programming, Systems Analysis and Design, Multimedia Systems, Software Project Management, and Graduation project.

Part-Time Lecturer September, 2010 – June, 2011
Arabian Education and Training Group, Amman – Jordan

Program Name: "High Diploma in Information and Communication Technologies in Education ICTE"

👉 Taught Courses:

Web Design, Graphical Design, and Graduation project.

Teacher of Computer Science October, 2007 – February, 2008

Ministry of Education, Tafila - Jordan

👉 I taught computer science at Busira secondary school for boys, Busira - Jordan.

OTHER EXPERIENCES

- Chair of the postgraduate committee at Dept. of CS at Mutah Univ. - (September, 2020 - Sep., 2021).
- Member of MaREL team (Models and Reuse Engineering Languages) - (January, 2012 – April, 2014).
- Member of organization committee for the ECOOP, ECSA and ECMFA conferences - (July 1-5, 2013).

PHD DISSERTATION

Reverse Engineering Feature Models From Software Variants to Build Software Product Lines: RIVEPLINE Approach. (University of Montpellier, Montpellier - France)

MASTER THESIS

A Requirement Model of Local News WEB/ WAP Application for Rural Communities. (University Utara Malaysia, Kedah – Malaysia)

SCHOLARSHIPS

A scholarship by the JOSYLEEN project - Erasmus Mundus Action 2 towards PhD in computer science during the period of 2012 – 2014, Montpellier – France

ACADEMIC REFEREE

Marianne Huchard	Universitè de Montpellier @ Montpellier - France.
Abdelhak-Djamel Seriai	Universitè de Montpellier @ Montpellier - France.
Christelle Urtado	LGI2P/Ecole des Mines d'Alès @ Nîmes - France.

RESEARCH INTERESTS

Software Engineering, Software Product Line Engineering (SPLE), Requirements Engineering, Requirements Traceability, Duplicate Bug Reports, Formal Concept Analysis (FCA), Information Retrieval, Software Documentation, Software Visualization, Reverse Engineering, and Feature Identification.

MASTER'S THESIS EXAMINATION COMMITTEE MEMBERSHIP

A. External Examiner:

- Maria Ghanem, "Duplicate Bug Reports Detection," Hashemite University; November 17, 2022.

- Hala Al-Zyoud, "Deep Learning Approach for Predicting the Severity Level of Bug Reports," Hashemite University; December 30, 2021.

B. Internal Examiner:

- Department of Computer Science, Faculty of Information Technology at Mutah University — several times.

SKILLS

Languages	- Arabic (mother tongue). - English (reading, writing and conversation).
Software engineer skills	- Teamwork, Communication skills, Leadership, Problem solving, ...
Programming languages	- Java, Python, C++, Oracle, Java Script, PHP, HTML, C#, VB, ...
Software	- MATLAB, LaTeX, DIRECTOR, DREAMWEAVER, PHOTOSHOP, ...
Certificates	- International Computer Driving Licence (ICDL: UN07097892).
Workshops	- Jordan Instructional Design Workshop - 2019. - Workshop on Model-based Systems for Industrial Applications - 2008.

PUBLICATIONS

Publications | Scopus Web of Science DBLP Google Scholar Research Gate

Journal:

[1] R. Al-Msie'deen, "BushraDBR: An Automatic Approach to Retrieving Duplicate Bug Reports," *International Journal of Computing and Digital Systems*, vol. 14, no. 2, pp. 1–18, 2023.

[2] R. Al-Msie'deen, "Requirements Traceability: Recovering and Visualizing Traceability Links Between Requirements and Source Code of Object-oriented Software Systems," *International Journal of Computing and Digital Systems*, vol. 14, no. 1, pp. 279–295, 2023. [Online]. Available: https://arxiv.org/pdf/2307.05188.pdf

[3] A. Al Nawaiseh, A. Albtoush, R. Al-Msie'deen, and S. Al Nawaiseh, "Evaluate database management system quality by analytic hierarchy process (AHP) and simple additive weighting (SAW) methodolog," *MENDEL*, vol. 28, no. 2, pp. 67–75, Dec. 2022. [Online]. Available: https://mendel-journal.org/index.php/mendel/article/view/202

[4] R. Al-Msie'deen, H. E. Salman, A. H. Blasi, and M. A. Alsuwaiket, "Naming the identified feature implementation blocks from software source code," *Journal of Communications Software and Systems*, vol. 18, no. 2, pp. 101–110, 2022.

[5] R. Al-Msie'deen, A. H. Blasi, H. E. Salman, S. S. Alja'afreh, A. Abadleh, M. A. Alsuwaiket, A. Hammouri, A. J. Al_Nawaiseh, W. Tarawneh, and S. A. Al-Showarah, "Detecting commonality and variability in use-case diagram variants," *Journal of Theoretical and Applied Information Technology*, vol. 100, no. 4, pp. 1113–1126, 2022.

[6] A. Abadleh, A. Al-saraireh, H. E. Salman, A. Al-akasasbeh, S. Alja'afreh, A. Hammouri, R. Al-Msie'deen, and A. Hassanat, "Covid-19 disease recognition using distributed data mining and deep learning," *Journal of Theoretical and Applied Information Technology*, vol. 100, no. 2, pp. 469–479, 2022.

[7] R. Al-Msie'deen, "Softcloud: A tool for visualizing software artifacts as tag clouds," *Mutah Lil-Buhuth wad-Dirasat - Natural and Applied Sciences Series*, vol. 37, no. 2, pp. 93–116, 2022.

[8] R. Al-Msie'deen, A. H. Blasi, and M. A. Alsuwaiket, "Constructing a software requirements specification and design for electronic it news magazine system," *International Journal of Advanced and Applied Sciences*, vol. 8, no. 11, pp. 104–118, 2021.

[9] R. Al-Msie'deen and A. H. Blasi, "Software evolution understanding: Automatic extraction of software identifiers map for object-oriented software systems," *Journal of Communications Software and Systems*, vol. 17, no. 1, pp. 20–28, 2021.

[10] R. Al-Msie'deen, "Tag clouds for software documents visualization," *International Journal on Informatics Visualization*, vol. 3, no. 4, pp. 361–364, 2019.

[11] R. Al-Msie'deen, "Tag clouds for object-oriented source code visualization," *Engineering, Technology & Applied Science Research*, vol. 9, no. 3, pp. 4243–4248, 2019.

[12] M. Alsuwaiket, A. Blasi, and R. Al-Msie'deen, "Formulating module assessment for improved academic performance predictability in higher education," *Engineering, Technology & Applied Science Research*, vol. 9, no. 3, p. 4287–4291, 2019.

[13] R. Al-Msie'deen and A. Blasi, "Supporting software documentation with source code summarization," *International Journal of Advanced and Applied Sciences*, vol. 6, no. 1, p. 59–67, 2019.

[14] R. Al-Msie'deen and A. Blasi, "The impact of the object-oriented software evolution on software metrics: The iris approach," *Indian Journal of Science and Technology*, vol. 11, no. 8, pp. 1–8, 2018.

[15] R. Al-Msie'deen, "Automatic labeling of the object-oriented source code: The lotus approach," *Science International-Lahore*, vol. 30, no. 1, pp. 45–48, 2018.

[16] A. Al-Shamailh, R. Al-Msie'deen, and A. Alsarhan, "Comparison between the rules of data storage tools," *International Journal of Database Theory and Application*, vol. 8, no. 1, pp. 129–136, 2015. [Online]. Available: http://article.nadiapub.com/IJDTA/vol8_no1/14.pdf

[17] R. Al-Msie'deen, "Visualizing object-oriented software for understanding and documentation," *International Journal of Computer Science and Information Security*, vol. 13, no. 5, p. 18–27, 2015.

[18] R. Al-Msie'deen, M. Huchard, A. Seriai, C. Urtado, and S. Vauttier, "Automatic documentation of [mined] feature implementations from source code elements and use-case diagrams with the REVPLINE approach," *Int. J. Softw. Eng. Knowl. Eng.*, vol. 24, no. 10, pp. 1413–1438, 2014.

[19] A. M. Alfrijat and R. Al-Msie'deen, "A requirement model of local news WAP/WEB application for rural community," *Advances in Computer Science and Engineering*, vol. 4, no. 1, pp. 37 –53, 2010.

Book:

[1] R. Al-Msie'deen, A. Seriai, and M. Huchard, *Reengineering Software Product Variants Into Software Product Line: REVPLINE Approach.* Lap Lambert Academic Publishing, 2014.

[2] R. Al-Msie'deen, *A Requirement Model of Local News Application for Rural Communities: A New Model for Rural News.* Lap Lambert Academic Publishing, 2014.

[3] R. Al-Msie'deen, M. Huchard, and C. Urtado, *Reverse Engineering Feature Models.* Lap Lambert Academic Publishing, 2014.

[4] R. Al-Msie'deen, *Feature Location in a Collection of Software Product Variants.* Lap Lambert Academic Publishing, 2014.

[5] R. Al-Msie'deen, *Object-oriented Software Documentation.* Lap Lambert Academic Publishing, 2019.

International Conference:

[1] R. Al-Msie'deen, M. Huchard, A. Seriai, C. Urtado, and S. Vauttier, "Reverse engineering feature models from software configurations using formal concept analysis," in *Proceedings of the Eleventh International Conference on Concept Lattices and Their Applications, Košice, Slovakia, October 7-10, 2014.* CEUR-WS.org, 2014, pp. 95–106.

[2] R. Al-Msie'deen, A. Seriai, M. Huchard, C. Urtado, and S. Vauttier, "Documenting the mined feature implementations from the object-oriented source code of a collection of software product variants," in *The 26th International Conference on Software Engineering and Knowledge Engineering, Hyatt Regency, Vancouver, BC, Canada, July 1-3, 2013.* Knowledge Systems Institute Graduate School, 2014, pp. 138–143.

[3] R. Al-Msie'deen, A. Seriai, M. Huchard, C. Urtado, S. Vauttier, and H. E. Salman, "Feature location in a collection of software product variants using formal concept analysis," in *Safe and Secure Software Reuse - 13th International Conference on Software Reuse, ICSR 2013, Pisa, Italy, June 18-20. Proceedings.* Springer, 2013, pp. 302–307.

[4] R. Al-Msie'deen, A. Seriai, M. Huchard, C. Urtado, and S. Vauttier, "Mining features from the object-oriented source code of software variants by combining lexical and structural similarity," in *IEEE 14th International Conference on Information Reuse & Integration, IRI 2013, San Francisco, CA, USA, August 14-16, 2013.* IEEE, 2013, pp. 586–593.

[5] R. Al-Msie'deen, A. Seriai, M. Huchard, C. Urtado, S. Vauttier, and H. E. Salman, "Mining features from the object-oriented source code of a collection of software variants using formal concept analysis and latent semantic indexing," in *The 25th International Conference on Software Engineering and Knowledge Engineering, Boston, MA, USA, June 27-29, 2013.* Knowledge Systems Institute Graduate School, 2013, pp. 244–249.

[6] R. Al-Msie'deen, M. Huchard, A. D. Seriai, C. Urtado, S. Vauttier, and A. Al-Khlifat, "Concept lattices: A representation space to structure software variability," in *Information and Communication Systems (ICICS), 2014 5th International Conference on*, Irbid, Jordan, April 2014, pp. 1–6.

International Workshop:

[1] R. Al-Msie'deen, A. D. Seriai, M. Huchard, C. Urtado, S. Vauttier, and H. E. Salman, "An approach to recover feature models from object-oriented source code," in *Actes de la Journée Lignes de Produits 2012*, Lille, France, November 2012, pp. 15–26.

[2] R. Al-Msie'deen, A. D. Seriai, M. Huchard, C. Urtado, S. Vauttier, and H. E. Salman, "Feature mining from a collection of software product variants," in *Actes de la Journées GDR - GPL - CIEL - AFADL 2013*, Nancy, France, April 2013, pp. 1–2.

[3] H. E. Salman, A. Seriai, C. Dony, and R. Al-Msie'deen, "Recovering traceability links between feature models and source code of product variants," in *Proceedings of the VARiability for You Workshop: Variability Modeling Made Useful for Everyone*, ser. VARY '12. New York, NY, USA: ACM, 2012, pp. 21–25.

[4] H. E. Salman, A. Seriai, C. Dony, and R. Al-Msie'deen, "Identifying traceability links between product variants and their features," in *REVE'2013: 1st International workshop on Reverse Variability Engineering*, 2013, pp. 17–23.

[5] H. E. Salman, A. Seriai, C. Dony, and R. Al-Msie'deen, "Genetic algorithms as recovering traceability links method between feature models and source code of product variants," in *Actes de la Journée Lignes de Produits 2012*, Lille, France, November 2012, pp. 3–14.

Poster:

[1] R. Al-Msie'deen, A. Seriai, M. Huchard, C. Urtado, S. Vauttier, and H. E. Salman, "A methodology to recover feature models from object-oriented source code," Innsbruck, Austria, September 2012.

Doctoral Symposium:

[1] R. Al-Msie'deen, "Mining feature models from the object-oriented source code of a collection of software product variants," in *Doctoral Symposium of ECOOP'13*, Montpellier, France, July 2013, pp. 1–10.

PhD dissertation & Master thesis:

[1] R. Al-Msie'deen, "Reverse engineering feature models from software variants to build software product lines: REVPLINE approach," Ph.D. dissertation, Montpellier 2 University, France, 2014. [Online]. Available: https://tel.archives-ouvertes.fr/tel-01015102

[2] R. Al-Msie'deen, "A requirement model of local news web/wap application for rural communities," Master's thesis, Universiti Utara Malaysia, Utara, Malaysian, 2008. [Online]. Available: http://etd.uum.edu.my/498/