Dr. Shadi Bani Taan

Computer Science & Software Engineering   313-993-1163
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Education

North Dakota State University Fargo, ND, USA   May 2013
PhD in Computer Science

Yarmouk University Irbid, Jordan   August 2004
M.Sc. in Computer and Information Sciences

Yarmouk University Irbid, Jordan
B.Sc. in Computer Science   June 2002

Teaching Experience

University of Detroit Mercy Detroit, USA   January 2013 – ON
Assistant Professor

- I developed and prepared lectures, assignments, projects, and lab sessions for the following undergraduate courses:
    - Introduction to Programming I
    - Introduction to Programming II
    - Java programming
    - Software Testing
    - Operating Systems
    - Software Quality Engineering
    - Artificial Intelligence
- I developed and prepared lectures, assignments, projects, and labs for the following graduate courses:
    - Software Testing
    - Software Design Techniques
    - Software Quality Engineering
    - Artificial Intelligence

North Dakota State University Fargo, ND, USA   January 2012 – May 2012
Teaching Assistant

- I graded lab and project assignments for the Java programming course

Nizwa University Nizwa, Oman   September 2004 - August 2009
Instructor

- I utilized presentation skills in teaching the following courses: Computer Skills, Visual Basic, IC3 (Internet and Computing Core Certificate), Operating Systems, Artificial Intelligence, Introduction to Algorithms, C++ programming language, Computer Networks
- I prepared and delivered tutorial and lab sessions
- I prepared assignments and term projects
- I supervised capstone projects

Model School/Yarmouk University, JORDAN   September 2002 - June 2003
Computer Instructor

- I utilized written skills in preparing lectures notes. I used communication skills as well as interpersonal skills in teaching computer science courses.

Research Experience and Scholarship

Publications

Refereed Journals

1- Iyad Alazzam, Mohammed Akour, **Shadi Banitaan**, Feras Hanandeh, "Feature-Based Test Focus Selection Technique Using Classes Connections Weight", in the International Journal of Operations Research and Information Systems (IJORIS), 7, 2016.

2- Mohammad Azzeh, Ali Bou Nassif, **Shadi Banitaan**, Fadi Almasalha, "Pareto Efficient Multi Objective Optimization for Local Tuning of Analogy Based Estimation", in the journal of Neural Computing and Applications, 8, 2015.

3- **Shadi Banitaan** and Mamdouh Alenezi, "Software Evolution via Topic Modeling: An Analytic Study", in the International Journal of Software Engineering and Its Applications, 2015.

4- Kevin Daimi and **Shadi Banitaan**, "Using Data Mining to Predict Possible Future Depression Cases", in the International Journal of Public Health Science (IJPHS), 2014.

5- Mamdouh Alenezi, **Shadi Banitaan**, and Kenneth Magel, "Efficient Bug Triaging Using Text Mining", in the Journal of Software 8.9, 2013.

6- Saeed Salem, Rami Alroobi, **Shadi Banitaan**, Loqmane Seridi, Ibrahim Aljarah, James Brewer, "Improving Functional Modules Discovery by Enriching Interaction Networks with Gene Profiles", In Current Bioinformatics, 2012.

Refereed Conference Proceedings

1- **Shadi Banitaan**, Ali Bou Nassif, and Mohammad Azzeh, "Class Decomposition using K-means and Hierarchical Clustering", in the 14th IEEE International Conference on Machine learning and Applications (ICMLA'15), Miami, Florida, USA.

2- Mohammad Azzeh, Ali Bou Nassif, and **Shadi Banitaan**, "An Application of Classification and Class Decomposition to Use Case Point Estimation Method", in the 14th IEEE International Conference on Machine learning and Applications (ICMLA'15), Miami, Florida, USA.

3- **Shadi Banitaan**, Kevin Daimi, Yujun Wang, and Mohammed Akour, "Test Case Selection using Software Complexity and Volume Metrics", in the 24th International Conference on Software Engineering and Data Engineering (SEDE 2015).

4- Mohammad Azzeh, Ali Bou Nassif, and **Shadi Banitaan**, "A Better Case Adaptation Method for Case-Based Effort Estimation Using Multi-Objective Optimization", the 13th International Conference on Machine Learning and Applications (ICMLA'14), Detroit, Michigan, USA.

5- **Shadi Banitaan** and Mamdouh Alenezi, "DECOBA: Utilizing Developers Communities in Bug Assignment", in Machine Learning Applications in Software Engineering, Special Session at the 12th IEEE International Conference on Machine Learning and Applications (ICMLA 2013), Miami, Florida, USA.

6- Mamdouh Alenezi and **Shadi Banitaan**, "Bug Reports Prioritization: Which Features and Classifier to Use?", in Machine Learning for Predictive Models (MLPM 2013), Special Session at the 12th IEEE International Conference on Machine Learning and Applications (ICMLA 2013), Miami, Florida, USA.

7- Kevin Daimi, **Shadi Banitaan**, Kathy Liszka, "Examining the Performance of Java Static Analyzers", in the 2013 International Conference on Software Engineering Research and Practice (SERP'13), Las Vegas, Nevada, USA.

8- **Shadi Banitaan** and Mamdouh Alenezi, "TRAM: An Approach for Assigning Bug Reports using their Metadata", in the third International Conference on Communications and Information Technology (ICCIT 2013), Beirut, Lebanon.

9- **Shadi Banitaan**, Mamdouh Alenezi, Kendall Nygard, and Kenneth Magel, "Towards Test Focus Selection for Integration Testing Using Method Level Software Metrics", In the 10th International Conference on Information Technology: New Generations (ITNG Software Testing 2013), Las Vegas, Nevada, USA.

10- Saeed Salem, **Shadi Banitaan**, Ibrahim Aljarah and Rami Alroobi , "Mining Maximal-Homogeneous Subnetworks using Protein Interaction Networks and Gene Profiles ", In the 4th international conference on Bioinformatics and Computational Biology (BICoB) 2012, Las Vegas, Nevada, USA

11- Saeed Salem, **Shadi Banitaan**, Ibrahim Aljarah, James Brewer and Rami Alroobi, "Discovering Communities in Social Networks using Topology and Attributes", in Proceedings of the International Conference on Machine Learning and Applications (ICMLA'11), December 2011, Honolulu , Hawaii, USA .

12- Ibrahim Aljarah, **Shadi Banitaan**, Sameer Abufardeh, Wei Jin, Saeed Salem. Selecting discriminating terms for bug assignment: a formal analysis. In Proceedings of the 7th International Conference on Predictive Models in Software Engineering (PROMISE 2011). Banff, Alberta, Canada, September 2011.

13- Saeed Salem, Rami Alroobi, **Shadi Banitaan**, Loqmane Seridi, James Brewer, Ibrahim Aljarah. "CLARM: An Integrative Approach for Functional Modules Discovery", in Proceedings of the International Workshop on Biomolecular Network Analysis (IWBNA'11), August 2011, Chicago, IL, USA.

14- **Shadi Banitaan**, Saeed Salem, Wei Jin, and Ibrahim Aljarah. "A Formal Study of Classification Techniques on Entity Discovery and their application to Opinion Mining". SMUC 2010, the 2nd International Workshop on Search and Mining User-generated Contents in Toronto (Canada), as a workshop of CIKM 2010.

Presentations
- Shadi Bani Taan, "Class Decomposition using K-means and Hierarchical Clustering", 2015 IEEE 14th International Conference on Machine Learning and Applications, Miami, Florida, USA, December 9, 2015.
- Shadi Bani Taan, "DECOBA: Utilizing Developers Communities in Bug Assignment", 2013 12th International Conference on Machine Learning and Applications (ICMLA), Miami, Florida, USA, December 4, 2013.
- Shadi Bani Taan, "TRAM: An Approach for Assigning Bug Reports using their Metadata", the third international conference on communications and information technology (ICCIT 2013), Beirut, Lebanon, June 19, 2013.
- Shadi Bani Taan, "Towards Test Focus Selection for Integration Testing using Method Level Software Metrics", 2013 10th International Conference on Information Technology: New Generations, Las Vegas, Nevada, USA, April 10, 2013.

Internally Funded Grants
- Test Case Selection using Software Metrics, FGIP Seed Grant 2014. Period: 2014-2015. PI: Shadi Banitaan, $3,000.
- Class Decomposition and its Application to Cancer Classification, UDMPU Faculty Research Awards 2015-2016, PI: Shadi Banitaan, $8,000.

Awards
- Best Paper Award Finalist, 24th International Conference on Software Engineering and Data Engineering (SEDE 2015), San Diego, California, USA.

Service

Recent Professional Service

- Technical program Co-chair for the 7th International Conference on Computer Science & Information Technology, July 13-14, 2016, Amman, Jordan.
- Member of the technical committee for the International Conference on Security and Management (SAM'16), July 25-28, Las Vegas, Nevada, USA.
- Sessions/Workshops Co-chair for the International Conference on Security and Management (SAM'16), July 25-28, Las Vegas, Nevada, USA.
- Member of the technical committee for the 7th International Conference on Information and Communication Systems, April 5-7, 2016, Irbid, Jordan.
- Member of the technical committee for the Machine Learning for Predictive Models for Engineering Applications (MLPMEA 2016) at the 15th IEEE International Conference on Machine Learning and Applications (ICMLA 2016).
- Guest editor for a special issue on predictive analytics using machine learning at the Neural Computing and Applications journal.
- Vice-chair of IEEE Southeast Michigan Section (SEM), Chapter V (computer society).

UDM Service

- Member of the University Information Technology team.
- Member of various college and department academic committees.
- Recruiter of graduate and undergraduate computer science and software engineering students.
- Adviser and mentor to undergraduate and graduate computer science and software engineering students

Computer Skills

- **Computer Programming:** C/C++, Java, VB.NET, Perl, Python, R, Swift

- **Data base knowledge:** Access, MySQL, Oracle

- **Operating Systems:** Microsoft Windows, UNIX, Linux

- **Web Development:** ASP.NET, HTML, JavaScript, PHP

- **Software:** VisualStudio.NET, Eclipse, NetBeans, MS Office, Adobe Photoshop, Adobe Dreamweaver

- **Tools:** JUnit Testing Framework, IBM Rational Functional Tester, Blackboard, LimeSurvey

Technology Certifications:

- Internet and Computing Core Certification (IC³)   October 2006

- IC³ Authorized Instructor   January 2007

Professional Affiliations

- The Association for Computing Machinery (ACM)   2011 - ON

- IEEE   2013 - ON

- IEEE Computer Society   2014 – ON

- The Kern Entrepreneurship Education Network   2014- ON