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Prince Sultan University

P.O.Box 66833 Riyadh 11586

College of Computer and Information Sciences

**MAMDOUH ALENEZI, PhD**

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| **EDUCATION** |

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| **Ph.D. Software Engineering** | **June 2014** |
| North Dakota State University, Fargo, ND | |
| Thesis: “A New Coupling Metric: Combining Structural and Semantic Relationships” | |
| **M.S. Software Engineering** | **June 2011** |
| DePaul University, Chicago, IL | |
| **B.S. Computer Science** | **March 2010** |
| Prince Sultan University, Riyadh | |

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| **CONSULTANCY and FUNDING EXPERIENCE** |

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| **Wisconsin Falconers Association** | **April 2011** |
| Building a reservation system for visitors. People from around the globe come and visit this association at certain times to visit certain types of birds prey. | |
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| **National Information Solutions Cooperative (NISC)** | **March 2013** |
| Helped them in transforming the billing management system of Walmart to a web service. The aim of the project was to help Branch managers to access utility bills on their mobile devices | |

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| **Saudi Telecom Company (STC)** | **May 2016** |
| A medium-size consultation project between STC and Prince Megren Data Mining Center (MEGDAM). The aim was to reducing repeated calls to improve field operations performance. | |
| **King Abdulaziz City for Science and Technology (KACST)** | **January 2017** |
| Dynamic Capacity Provisioning in Cloud-Based Network. The aim is to handle the challenge of resource allocation in a cloud-based network. The model will handle advance and online reservation resource requests. (163,200 SAR). | |
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| **TEACHING EXPERIENCE** | | |

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| **Gifted High-school Students** | **2009** |
| Mobile Development using Visual Studio | |
| **Prince Sultan University** | **2014 to Present** |
| SE 201: Introduction to Software Engineering  SE 211: Software Construction  SE 311: Software Requirements Engineering  SE 322: Software Design & Architecture  SE 353: Building Secure Software Systems  SE 401: Software Quality Assurance & Testing  SE 415: Group Dynamics & Professional Practice | |
| **WORK EXPERIENCE** | | |

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| **Dean of Quality Assurance and Development**  *Prince Sultan University* | | | **Sep 2020 to Present** |
| **Dean of Educational Services** | | | **Sep 2018 to Aug 202** |
| *Prince Sultan University*  **Associate Professor (Department of Computer Science)**  *Prince Sultan University* | | | **Dec 2018 to Present** |
| **Chief Information & Technology Officer** | | | **Sep 2016 to Aug 2019** |
| *Prince Sultan University* | | |  |
| **General Supervisor of Information Technology & Computing Services** | | | **March 2016 to Aug 2016** |
| *Prince Sultan University* | | | |
| **Chairman of the Department of Computer Science** | | | **Sep 2015 to Aug 2016** |
| *Prince Sultan University* | | | |
| **Assistant Professor (Department of Computer Science)** | | | **Sep 2014 to Dec 2018** |
| *Prince Sultan University* | | | |
| **New Course Development** | **Master degree curriculum development** | |
| * SE 211: Software Construction * SE 311: Software Requirements Engineering * SE 415: Group Dynamics & Professional Practice | * Participated in development of MS in Software Engineering program * Participated in development of MS in Cybersecurity Engineering program | |
| **Service and Administration** | **Master Thesis Committee** | |
| * University level Examination Committee * PSU Institutional Policy Committee * Institutional Strategic Planning Committee * ABET Steering Committee * Institutional Technology and Quality Committee * Institutional Exectuive Research Committee | * A Context-Aware Personalization Model for Augmented Reality Applications * User Experience Dimensions, Aspects, and Measures: Systematic Literature Review * Software Architecture Stability Evolution in Open Source Object-Oriented Systems | |

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| **Sample Publications** |

**JOURNAL ARTICLES**

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| ISI | **Mamdouh Alenezi**: "Internal Quality Evolution of Open-Source Software Systems." Applied Sciences, 2021, 11, 5690 |
| ISI | **Mamdouh Alenezi**: "Safeguarding Cloud Computing Infrastructure: A Security Analysis." Computer Systems Science and Engineering Vol.37, No.2, 2021, pp.159-167 |
| ISI | Khalid T. Al-Sarayreh, **Mamdouh Alenezi**, Mohammed Zarour, and Kenza Meridji: "A reference measurement framework of software security product quality (SPQNFSR)." IET Information Security, 2021. |
| ISI | Mohammad Zarour, **Mamdouh Alenezi**, Amal Krishna Sarkar, Alka Agrawal, Rajeev Kumar, and Raees Ahmad Khan: "Healthcare Data Breaches: Insights and Implications." Healthcare 2020, 8(2), 133 |
| ISI | Celestine Iwendi, Suleman Khan, Joseph H. Anajemba, Mohit Mittal, **Mamdouh Alenezi**, Mamoun Alazab: "The Use of Ensemble Models for Multiple Class and Binary Class Classification for Improving Intrusion Detection Systems." Sensors 2020, 20(9), 2559 |
| ISI | Alka Agrawal, **Mamdouh Alenezi**, Rajeev Kumar, and Raees Ahmad Khan: "Measuring the Sustainable-Security of Web Applications Through a Fuzzy-Based Integrated Approach of AHP and TOPSIS." IEEE Access, Volume 7, pp. 153936 - 153951 November 2019. |
| Scopus | Alka Agrawal, **Mamdouh Alenezi**, Rajeev Kumar, and Raees Ahmad Khan: "A source code perspective framework to produce secure web applications." Computer Fraud & Security, Volume 2019, Issue 10, pp. 11 - 18 October 2019. |
| Scopus | Alka Agrawal, Mohammad Zarour, **Mamdouh Alenezi**, Rajeev Kumar, and Raees Ahmad Khan: "Security durability assessment through fuzzy analytic hierarchy process." PeerJ Computer Science, 5:e215 September 2019. |
| Scopus | Alka Agrawal, **Mamdouh Alenezi**, Dhirendra Pandey, Rajeev Kumar, and Raees Ahmad Khan: "Usable-Security Assessment Through A Decision Making Procedure." ICIC Express Letters, Part B: Applications, Volume 10, Number 8, pp. 665 - 672 July 2019. |
| ISI | Rajeev Kumar, Mohammad Zarour, **Mamdouh Alenezi**, Alka Agrawal, and Raees Ahmad Khan: "Measuring Security Durability of Software through Fuzzy-Based Decision-Making Process." International Journal of Computational Intelligence Systems, Volume 12, Number 2, pp. 627 - 642 June 2019. |
| Scopus | Attiq ur Rehman Jaffar, Muhammad Nadeem, **Mamdouh Alenezi**, and Yasir Javed: "Using Public Vulnerabilities Data to Self-Heal Security Issues in Software Systems." ICIC Express Letters, Volume 13, Number 7, pp. 557 - 567 July 2019. |
| Scopus | Alka Agrawal, **Mamdouh Alenezi**, Suhel Ahmad Khan, Rajeev Kumar, Raees Ahmad Khan: "Multi-level Fuzzy System for Usable-Security Assessment." Journal of King Saud University-Computer and Information Sciences (2019). |
| Scopus | **Mamdouh Alenezi**, Muhammad Usama, Khaled Almustafa, Waheed Iqbal, Muhammad Ali Raza, and Tanveer Khan: "An Efficient, Secure, and Queryable Encryption for NoSQL-Based Databases Hosted on Untrusted Cloud Environments." International Journal of Information Security and Privacy (IJISP), Volume 13, Issue 2, pp. 14 - 31 (2019). |
| Scopus | Md Tarique Jamal Ansari, Dhirendra Pandey, and **Mamdouh Alenezi**: "STORE: Security Threat Oriented Requirements Engineering Methodology." Journal of King Saud University - Computer and Information Sciences (2018). |
| ISI | Muhammad Abdullah, Saad Khan, **Mamdouh Alenezi**, Khaled Almustafa, and Waheed Iqbal: "Application Centric Virtual Machine Placements to Minimize Bandwidth Utilization in Datacenters." Intelligent Automation and Soft Computing. |
| ISI | Iman Almomani and **Mamdouh Alenezi**: "Efficient Denial of Service Attacks Detection in Wireless Sensor Networks." Journal of Information Science and Engineering Vol. 34, No. 4 (2018), pp. 977 - 1000. |
| Scopus | **Mamdouh Alenezi**, Khaled Almustafa and Khalim Amjad Meerja: "Cloud based SDN and NFV architectures for IoT infrastructure." Egyptian Informatics Journal (2018). |
| Scopus | **Mamdouh Alenezi**, Khaled Almustafa and Mohamed Hussein: "On Virtualization and Security-Awareness Performance Analysis in 5G Cellular Networks." Journal of Engineering Science and Technology Review Vol. 11, No. 1 (2018), pp. 199 - 207. |
| Scopus | Thamer Alhamed and **Mamdouh Alenezi**: "Business Continuity Management & Disaster Recovery Capabilities in Saudi Arabia ICT Businesses." International Journal of Hybrid Information Technology Vol. 9, No. 11 (2016), pp. 99-126. |
| Scopus | **Mamdouh Alenezi**, “Software Architecture Quality Measurement Stability and Understandability.” International Journal of Advanced Computer Science and Applications(IJACSA), Volume 7 Issue 7, pp. 550-559 (2016) |
| ISI | Ibrahim Abunadi and **Mamdouh Alenezi**: "An Empirical Investigation of Security Vulnerabilities within Web Applications." Journal of Universal Computer Science Vol. 22, No. 4, pp. 537-551 (2016). |
| Scopus | **Mamdouh Alenezi** and Fakhry Khellah. "Evolution Impact on Architecture Stability in Open-Source Projects." International Journal of Cloud Applications and Computing (IJCAC) 5.4 (2015): 24-35. |
| Scopus | **Mamdouh Alenezi** and Khaled Almustafa: "Empirical Analysis of the Complexity Evolution in Open-Source Software Systems" International Journal of Hybrid Information Technology (IJHIT), Vol.8, No.2, 2015. |
| Scopus | **Mamdouh Alenezi** and Kenneth Magel: "Empirical Evaluation of A New Coupling Metric: Combining Structural and Semantic Coupling." International Journal of Computers and Applications 36(1) (2014). |

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**CONFERENCE PROCEEDINGS**

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| --- | --- |
| Springer | Yasir Javed, Qasim Ali Arian, and **Mamdouh Alenezi**: “SecurityGuard: An Automated Secure Coding Framework.” 3rd International Conference on Intelligent Technologies and Applications INTAP 2020, September 2020, Gjøvik, Norway |
| ACM | Wajdi Aljedaani, Yasir Javed, and **Mamdouh Alenezi**: “LDA Categorization of Security Bug Reports in Chromium Projects.” ESSE 2020： European Symposium on Software Engineering, November 2020, Pages 154–161, Roma, Italy |
| ACM | Wajdi Aljedaani, Yasir Javed, and Mamdouh Alenezi: “Open Source Systems Bug Reports: Meta-Analysis.” ICBDE '20: Proceedings of the 2020 The 3rd International Conference on Big Data and Education, April 2020, Pages 43–49 |
| Springer | Mohammad Zarour, **Mamdouh Alenezi**, Maurice Dawson, and Izzat Alsmadi: “Toward Effective Cybersecurity Education in Saudi Arabia.” 17th International Conference on Information Technology–New Generations (ITNG 2020), April 2020 Pages 79-85. |
| ACM | Mohammad Zarour, **Mamdouh Alenezi**, Khalid Alsarayrah: “Software Security Specifications and Design: How Software Engineers and Practitioners Are Mixing Things up.” EASE '20: Proceedings of the Evaluation and Assessment in Software Engineering, April 2020 Pages 451–456. |
| ACM | **Mamdouh Alenezi**, Hamid Abdul Basit, Faraz Idris Khan, Maham Anwar Beg: “A Comparison Study of Available Sofware Security Ontologies.” EASE '20: Proceedings of the Evaluation and Assessment in Software Engineering, April 2020 Pages 499–504. |
| Springer | **Mamdouh Alenezi** and Faraz Idris Khan: “Context-Sensitive Case-Based Software Security Management System.” 3rd Computational Methods in Systems and Software 2019. |
| Springer | **Mamdouh Alenezi** and Iman Almomani: “Empirical Analysis of Static Code Metrics for Predicting Risk Scores in Android Applications.” 5th International Symposium on Data Mining Applications (SDMA2018), Riyadh, Saudi Arabia. |
| IEEE | **Mamdouh Alenezi** and Iman Almomani: “Abusing Android Permissions: A Security Perspective.” 2017 IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), Amman, Jordan. |
| Elsevier | Khaled Almustafa and **Mamdouh Alenezi**: “Cost Analysis of SDN/NFV Architecture over 4G Infrastructure.” The 8th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN-2017), Lund, Sweden. |
| IEEE | **Mamdouh Alenezi**, Mohammed Akour, Alaa Hussien, and Mohammad Z. Al-Saad: “Test Suite Effectiveness: An Indicator for Open Source Software Quality.” The 2nd International Conference on Open Source Software Computing (OSSCOM 2016), Beirut, Lebanon |
| IEEE | **Mamdouh Alenezi** and Yasir Javed: “Open Source Web Application Security: A Static Analysis Approach.” International Conference on Engineering & MIS 2016 (ICEMIS’16), Agadir, Morocco. |
| Elsevier | Yasir Javed and **Mamdouh Alenezi**: “Defectiveness Evolution in Open Source Software Systems.” 4th Symposium on Data Mining Applications (SDMA 2016), Riyadh, Saudi Arabia. |
| IEEE | Khaled Almustafa and **Mamdouh Alenezi**: “Dynamic Evolution of Source Code Topics.” The Tenth International Conference on Software Engineering Advances (ICSEA 2015), Barcelona, Spain. |
| ACM | Ibrahim Abunadi and **Mamdouh Alenezi**: “Towards Cross Project Vulnerability  Prediction in Open Source Web Applications.” International Conference on Engineering & MIS 2015 (ICEMIS’15), Istanbul, Turkey. |
| ACM | **Mamdouh Alenezi** and Mohammad Zarour: “Modularity Measurement and Evolution in Object-Oriented Open-Source Projects.” International Conference on Engineering & MIS 2015 (ICEMIS’15), Istanbul, Turkey. |
| ACM | **Mamdouh Alenezi** and Fakhry Khellah: “Architectural Stability Evolution in Open-Source Systems.” International Conference on Engineering & MIS 2015 (ICEMIS’15), Istanbul, Turkey. |
| IEEE | **Mamdouh Alenezi**, Shadi Banitaan, and Qasem Obeidat: “Fault-Proneness of Open Source Systems: An Empirical Analysis.” International Arab Conference on Information Technology (ACIT 2014), Nizwa, Oman. |
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| **Services** | |

**Conference Chair**

* 5th International Symposium on Data Mining Applications (SDMA2018)
* 6th International Conference on Data Science and Machine Learning Applications (CDMA 2020)

**Program Committee Membership**

* Workshop on Machine Learning for Predictive Models (MLPM 2014), 13th IEEE International Conference on Machine Learning and Applications (ICMLA 2014).
* International Conference on Computing and Informatics (ICOCI 2015).
* The Third Information Systems International Conference (ISICO 2015).
* The Tenth International Conference on Software Engineering Advances (ICSEA 2015).
* International Conference on Computing Education and Information Technology (ICCEIT 2015).
* Workshop on Machine Learning for Predictive Models in Engineering Applications (MLPMEA 2015), 14th IEEE International Conference on Machine Learning and Applications (ICMLA 2015).
* International Conference on Computing Education and Information Technology (ICCEIT 2015).
* The 7th International Conference on Information and Communication Systems (ICICS 2016).
* The 4th Symposium on Data Mining Applications (SDMA 2016).
* The 4th Saudi International Conference on Information Technology, Big Data Analysis (KACSTIT2016).
* The Eleventh International Conference on Software Engineering Advances (ICSEA 2016).
* Special Session: Machine Learning for Predictive Models in Engineering Applications, The 18th IEEE International Conference on Machine Learning and Applications (ICMLA 2019).

**Reviewer of International Indexed Journals**

* International Journal of Cloud Applications and Computing (IJCAC).
* KSII Transactions on Internet and Information Systems.
* Journal of Ambient Intelligence and Humanized Computing.
* International Journal of Software Engineering and Knowledge Engineering.
* Information and Software Technology.
* Journal of Information Security and Applications.
* ACM Computing Surveys.
* Education and Information Technologies

**Master Students Supervision**

* Hussain Alshehri - Internet of Things - Architecture of Multiple Sources Data Acquisition Sensors
* Sultan Alotaibi - An exploratory study of DevOps Awareness and Adoption in Saudi Arabia
* Abdulrahman Asiri - Cloud-based Cross-enterprise Imaging Framework
* Thamer Alhamed - Measuring the Capability of Business Continuity Management & Disaster Recovery in the Kingdom of Saudi Arabia ICT Companies
* Turki Alshammary - Software Architecture Understandability in Object-Oriented Systems
* Hassan Al-Mousa - Software Architecture Stability Evolution in Open Source Object-Oriented Systems
* Laila Al-Rowais - Framework for Security Testing of Web Applications
* Khawlah AlOmar - Static Analysis of Open-Source Web Applications

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