Saad Alqithami

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AFFILIATION AND EXPERIENCE

- *Faculty Member*: Associate Professor   January 2022 - Present
  Department of Computer Science, Albaha University, Albaha, Saudi Arabia
- *General Director:* Scholarships and University Relations   Aug 2019 - August 2021
  Vice Rectorate for Graduate Studies and Scientific Research, Albaha University, Saudi Arabia
- *Assistant Director:* Scholarships and University Relations   Mar 2019 - Aug 2019
  Vice Rectorate for Graduate Studies and Scientific Research, Albaha University, Saudi Arabia
- *Head of Department*: Computer Information System Department   April 2018 - August 2020
  College of Computer Science and Information Systems, Albaha University, Saudi Arabia
- *Faculty Member*: Assistant Professor   March 2017 - January 2022
  Department of Computer Science, Albaha University, Albaha, Saudi Arabia
- *Faculty Member*: Lecturer   March 2015 - March 2017
  Department of Computer Science, Albaha University, Albaha, Saudi Arabia
- *Social Networks Analyst and Programmer*   March - July 2012
  Department of Computer Science, Southern Illinois University, Carbondale, IL, United States
- *Faculty Member*: Teaching Assistant   May 2009 - March 2015
  Department of Computer Science, Albaha University, Albaha, Saudi Arabia

EDUCATION

Doctor of Philosophy, Computer Science   December 2016
Department of Computer Science
Southern Illinois University, Carbondale, IL United States
Master of Science, Computer Science   August 2012
Department of Computer Science
Southern Illinois University, Carbondale, IL United States
Bachelor of Science, Computer Science   July 2008
Department of Computer Science
Taif University, Taif, Saudi Arabia

PUBLICATIONS

Patient:

- Smart Tree Health Assessment (THA) model using advanced computer vision techniques and machine learning. Inventors: Rutvij Jhaveri, Piyush Shukla, Saad Alqithami, Deepsubhra Guha Roy, Poongodi M, Malathy Sathyamoorthy, Australia Innovation Patent, Application: 2021104683 (Granted on 22/09/2021)

Journal Papers:

- Alghamdi, H. and Alqithami, S. (2023). Unraveling Stock Market Chaos: Machine Learning-Based Binary Classification. In *IEEE ACCESS*. IEEE
- Alqithami, S. (2021). A serious-gamification blueprint towards a normalized attention. In *Brain Informatics*, 8(6). Springer.
- Alqithami, S. (2021). A Generic Encapsulation to Unravel Social Spreading of a Pandemic: An Underlying Architecture". In *Computers*, 10(1): 12. MDPI AG.
- Savaliya, A., Jhaveri, R., Xin, Q., Alqithami, S., Ramani, S., and Ahanger, T. (2021). Securing industrial communication with software-defined networking. In *Mathematical Biosciences and Engineering*, 18(6). 8298-8314, AIMS Press.

- Alqithami, S., Budiarto, R., Alzahrani, M., & Hexmoor, H. (2020). Towards Social Capital in a Network Organization: A Conceptual Model and an Empirical Approach. In *Entropy*, 22(5): 519. MDPI Multidisciplinary Digital Publishing Institute.
- Alzahrani, M., & Alqithami, S. (2020). An External Client-Based Approach for the Extract Class Refactoring: A Theoretical Model and an Empirical Approach. In *Applied Science*, 10(17): 6038. MDPI Multidisciplinary Digital Publishing Institute.
- Alqithami, S., Alzahrani, M., Alzahrani, A., & Mustafa, A. (2019). AR-Therapist: Design and Simulation of an AR-Game Environment as a CBT for Patients with ADHD. In *Healthcare*, 7(4), 146-160. Multidisciplinary Digital Publishing Institute.
- Alqithami, S., & Hexmoor, H. (2014). Modeling emergent network organizations. *Web Intelligence and Agent Systems: An International Journal* (WIAS), IOS Press,12(3), 325-339.
- Alqithami, S., & Hexmoor, H. (2014). Plasticity in Network Organizations. *Journal of Advanced Computational Intelligence and Intelligent Informatics* (JACIII), Fuji Technology Press. 18(4), 567-572.
- Khaleel, M., Alqithami, S., Zhu, M. M., Che, D., & Hou, W. C. (2013). A Cooperative Game Theory-based Approach for Energy-Aware Job Scheduling in Cloud. *International Journal of Computers and Their Applications* (IJCA), 20(4), 221-235.

Book Chapter:
- Alqithami, S., Haegele, J., & Hexmoor, H. (2014). Conceptual modeling of networked organizations: The case of AUM Shinrikyo. *Case Studies in Intelligent Computing: Achievements and Trends*, B. Issac & N. Israr (Eds.). CRC Press, Taylor and Francis, 391-406.

Conference Papers:
- Alqithami S., (2021, Septemper). Fluid Dynamics of a Pandemic in a Spatial Social Network: A Reflective Measure of the Spreading. In *Intelligent Systems Conference* (IntelliSys),Amsterdam, The Netherlands. (LNNS). Springer.

- Alqithami S., (2020, July). Modeling an AR Serious Game to Increase Attention of ADHD Patients. In *IEEE 44th Annual Computer Software and Applications Conference* (COMPSAC). (pp. 1379-1384). IEEE.

- Alqithami, S., Alzahrani, M., Alzahrani, A., & Mostafa, A. (2019, December). Modeling an Augmented Reality Game Environment to Enhance Behavior of ADHD Patients. In *International Conference on Brain Informatics*, Haikou, Hainan, China. (LNCS Vol. 11976, pp. 179-188). Springer, Cham.

- Alzahrani, M., Alqithami, S., & Melton, A. (2019, July). Using Client-Based Class Cohesion Metrics to Predict Class Maintainability. In *IEEE 43rd Annual Computer Software and Applications Conference* (COMPSAC). Milwaukee, WI, USA. (Vol. 1, pp. 72-80). IEEE.

- Alqithami, S., & Hexmoor, H. (2015, June). Ubiquity of Network Organizations: Paradigmatic Perspective and Synergistic Effect[*], In *the International Conference on Collaboration Technologies and Systems* (CTS). Atlanta, GA USA. (pp. 98-105). IEEE.

- Alqithami, S. (2015, June). Architectonic Elucidation for a Network Organization, In *the International Conference on Collaboration Technologies and Systems* (CTS). Atlanta, GA USA. (pp. 464-467).

- Alqithami, S. (2015, May). A Reference Model for a Networked Organization, In *the International Conference on Autonomous Agents and Multi-Agent Systems* (AAMAS). Istanbul, Turkey. (pp. 1981-1982).

- Alqithami, S. (2015, January). A Succinct Conceptualization of the Foundations for a Network Organization Paradigm, In *the twenty-ninth AAAI conference on Artificial Intelligence* (AAAI). Austin, Texas, USA. (pp. 4140-4141).

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[*]Nominated for an outstanding paper award

- Alqithami, S., & Hexmoor, H. (2014, June). Social Capital in Network Organizations, In *the twenty-eighth AAAI conference on Artificial Intelligence* (AAAI). Quebec, Canada. (pp. 3090-3091).
- Alqithami, S., & Hexmoor, H. (2013, April). Qualities of Interest for Spontaneous Networked Organizations, In *AASRI Conference on Intelligent Systems and Control*, 4, Vancouver, Canada. (pp. 118-124).
- Hamdi, M., Alqithami, S., & Hexmoor, H. (2013). On the core of agents interactions in a spontaneous networked organization. In *AASRI Conference on Intelligent Systems and Control*, 4, Vancouver, Canada. (pp. 147-153).
- Alqithami, S., & Hexmoor, H. (2012, October). Spontaneous Organizations: Collaborative Computing Model of a Networked Organization. In *the 8th IEEE International Conference on Collaborative Computing: Networking, Applications and Work-sharing (Collaborative Communities for Social Computing)*. Pittsburgh, PA, USA. (pp.643–650).
- Alqithami, S., & Hexmoor, H. (2012, September). Social capital in virtual organizations. In *the 4th International Conference on Intelligent Networking and Collaborative Systems* (INCoS). Bucharest, Romania. (pp.682–687).
- Alqithami, S., & Hexmoor, H. (2012, July). Rapid Adaptation in Computational Organizations. In *the International Conference on Artificial Intelligence* (IC-AI). Las Vegas, NV USA. (pp. 342–347).

Workshop and Magazine Papers:
- Alqithami, S. & Alomari, A. (July, 2020). Understanding the Viral Spreading of COVID-19 in Evolving Social Networks: Reflective Measurements. In *COVID-19 Satellite of Sunbelt XL*, INSNA.
- Alqithami, S., Alzahrani, M., Alghamdi, F., Budiarto, R., & Hexmoor, H. (2019, July). A Measurement of Social Capital in an Open Source Software Project. In *International Conference on Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation* (SBP-BRiMS). Washington DC, USA.
- Alqithami, S. (2016). Network Organization Paradigm. *AI Matters, 2*(4), 16-17. ACM.
- Alqithami, S., & Hexmoor, H. (2016, March). Measuring Synergy from Benevolence in a Network Organization. In *multiagent interaction without prior coordination workshop (MIPC) at the 30th AAAI Conference on Artificial Intelligence*. Phoenix, AR USA. (pp. 538 - 545).
- Alqithami, S. (2015, May). Network Organization Paradigm: Synergistic Effect on the Productivity of a Collaborative Organization. In *the 3rd collaborative online organizations workshop in conjunction with 14th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2015)*. Istanbul, Turkey. (pp. 6-14).
- Alqithami, S., & Haegele, J. (2014, May). Evaluation of the Utility Function in Terrorist Organizations. In *the Second Collaborative Online Organizations workshop in conjunction with the 13th International Conference on Autonomous Agents and Multiagent Systems*. Paris, France. (pp. 15-22).
- Alqithami, S., & Hexmoor, H. (2013, May). Introduction to Plasticity in Network Organizations. In *the collaborative online organizations workshop in conjunction with the 12th International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*. Saint Paul, MN USA. (pp. 32-36).

Edited Volumes:
- Alqithami, S., & Lützenberger, M. (Eds.). (2017). Internet of Agents: Proceeding of the second international workshop. São Paulo, Brazil.
- Alqithami, S., Haifeng, Z., & Hexmoor, H. (Eds.). (2016). Internet of Agents: Proceeding of the first international workshop. Omaha, NE USA.
- Alqithami, S., & Hexmoor, H. (Eds.). (2016). Networked agents of complex online organisations [Special issue]. International Journal of Computational Intelligence Studies, 5(2).

- Alqithami, S., & Hexmoor, H. (Eds.). (2015). Collaborative online organizations: Proceeding of the third Autonomous Agents and Multiagent Systems workshop. Istanbul, Turkey.
- Alqithami, S., & Hexmoor, H. (Eds.). (2014). Collaborative online organizations: Proceeding of the third Autonomous Agents and Multiagent Systems workshop. Paris, France.
- Alqithami, S., Hexmoor, H., Dignum, F., & Matson, E. (Eds.). (2013). Collaborative online organizations: Proceeding of the first Autonomous Agents and Multiagent Systems workshop. St. Paul, MN USA.

GRANTS:

1. **Title**: *"Square-2: The Intelligent Consultant Agent"*.
   Role: Co-Founder.
   Provider: King Abdulaziz City for Science and Technology (KACST).
   Launch: May 2020.

2. **Title**: *"Understanding Social Contagion and Viral Spreading of COVID-19 in Time of a Pandemic Using AI Techniques"*.
   Role: Principle Investigator.
   Provider: Albaha University, Deanship of Scientific Research.
   Period: Oct. 2020 – Oct. 2021.

3. **Title**: *"An Intelligent Cognitive Modeling for Enhancing the Behavior of Children with ADHD using a Mixed Reality Environment"*.
   Role: Principle Investigator.
   Provider: Albaha University, Deanship of Scientific Research.
   Period: Oct. 2018 – Oct. 2019.

ACADEMIC ACTIVITIES:

- Editor member of Journal of Social Structure, Exeley. 2021.
- Guest-Editor of the special issue: "Evolving Intelligent Systems in Healthcare to Aid Resource-Poor Communities," for the *Journal of Healthcare Engineering*, Hindawi. 2020.
- Program committee member of The International Conference on Neuroscience and Cognitive Brain Information (BRAININFO): 2021, 2022, and 2023.
- Program committee member of the 3rd International Conference on Computer Information Science and Application Technology (CISAT 2020). Dali, China: July 2020.
- Program committee member of the 13th International Symposium on Intelligent Distributed Computing (IDC 2019). Saint-Petersburg, Russia: October 2019.
- Co-chair of a workshop on Acculturating Research and Publication for young researchers, CSIT at Albaha University: December 2017.
- Co-chair of the 2nd international workshop on the Internet of Agents (IoA), organized in conjunction with 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2017). São Paulo, Brazil: May 2017.
- Co-chair of the 1st international workshop on the Internet of Agents (IoA), organized in conjunction with the conference of Web Intelligence. Omaha, NE USA: October 2016.
- Program committee member of the International Joint Conference of Artificial Intelligence (IJCAI). New York, USA: July 2016.
- Co-chair of the Collaborative Online Organizations workshop, organized in conjunction with the International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS): May 2013, 2014 and 2015.
- Organizing Committee of the 2nd International Conference on Computational and Network Technologies, 2014.
- Reviewer for multiple journals:

  - IEEE Transactions on Computational Social Systems   2020
  - IEEE ACCESS   2019 – Present
  - IEEE Intelligent Systems   2011 – Present

- IEEE Transactions on Computational Intelligence and AI in Games   2014
- International Journal of Automation and Computing, Springer   2013 - Present
- Journal of Experimental & Theoretical Artificial Intelligence, T&F   2013 - Present

- Reviewer for several local and international conferences and workshops (e.g. IJCAI'16, IoA, COOS, ISCI, PRIP, ISWTA, etc.)
- Professional memberships: INSNA, ACM, IEEE, AAAI, IAENG, KES and SSPI.
- Honorary Rosalind Member of London Journals Press, UK.