Z/J Zubair Jeelani

MCA | JK SET | UGC NET | GATE | PhD CS

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Zubair J. | LinkedIn

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ABOUT ME

I am an active researcher working in the field of image processing, cellular automata and computer vision.

We have published our research in journals of international repute indexed in quality databases like SCI and Scopus. Moreover, we have attended various international conferences and presented our research work therein.

EXPERTISE

- 9 / 10 — Image Processing
- 9 / 10 — Cellular Automata
- 8 / 10 — Computer Vision
- 6 / 10 — Blockchain Technology
- 6 / 10 — Machine Learning

EDUCATION

PhD Computer Science
University of Kashmir, India
2016 – 2020

Master of Computer Applications
Islamic University of Science and Technology, India
2009 – 2012

Bachelors in Science
University of Kashmir, India
2005 – 2008

EXPERIENCE

Lecturer
Islamic University of Science and Technology, J&K, India. (February 2021 – present)

Teaching students of MCA and MSc IT courses including Data Structures, Java Programming, Algorithmics and Discrete Mathematics.

Assistant Professor
Islamic University of Science and Technology, J&K, India. (March 2020 – December 2020)

The primary role is to teach computer science courses to students enrolled in MCA and MSc IT programmes. Few additional roles at the job are

- Teaching MATLAB to PhD scholars.
- Preparation of syllabus for MCA.
- Nodal officer for the smooth conduct of online classes

Lecturer
University of Kashmir (North Campus), J&K, India. (July 2019 – March 2020)

Tutored students of MCA courses including Data Structures, Java Programming, Assembly Language Programming.

Guest Faculty
University of Kashmir (North Campus), J&K, India. (December 2018 – March 2019)

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PUBLICATIONS AND CONFERENCES

PUBLICATIONS

1. Gani, G., **Jeelani, Z.** & Qadir, F. Cellular automata-based CMF detection under single and multiple post-processing attacks. Multimedia Systems (2021). doi:10.1007/s00530-021-00828-z. **(IF: 1.935)**
2. **Jeelani, Z.**, Qadir, F., & Gani, G. (2021). Cellular automata-based digital image scrambling under JPEG compression attack. Multimedia Systems. doi:10.1007/s00530-021-00759-9. **(IF: 1.935)**
3. **Jeelani, Z.** (2020). Digital Image Encryption Based on Chaotic Cellular Automata. International Journal of Computer Vision and Image Processing, 10(4), 29–42. doi:10.4018/ijcvip.2020100102.
4. **Jeelani, Z.**, & Qadir, F. (2020). A comparative study of cellular automata-based digital image scrambling techniques. Evolving Systems. doi:10.1007/s12530-020-09326-5. **(IF: 1.908)**
5. **Jeelani, Z.**, & Qadir, F. (2018). Cellular automata-based approach for salt-and-pepper noise filtration. Journal of King Saud University - Computer and Information Sciences. doi:10.1016/j.jksuci.2018.12.006. **(IF: 13.473)**
6. **Jeelani, Z.**, & Qadir, F. (2018). Cellular automata-based approach for digital image scrambling. International Journal of Intelligent Computing and Cybernetics, 11(3), 353–370. doi:10.1108/ijicc-10-2017-0132.
7. **Jeelani, Z.**, & Qadir, F. (2018). An Insight into Cellular Automata-Based Impulse Noise Filtration Algorithms. International Journal of Advance Research in Science and Engineering, 7(4), 1948-1956.
8. **Jeelani, Z.** & Bhat, O. (2013). An Insight of SSL Security Attacks. International Journal of Research in Engineering and Applied Sciences, 3(3), 52-61.

BOOK CHAPTERS

1. Yousuf, R., **Jeelani, Z.,** & Khan, D. A. (2021). Security and Privacy Concerns for Blockchain while Handling Healthcare Data. In: Sheikh M. I., Agarwal P., Alam M.A. (*eds*) Blockchain for Healthcare Systems, Challenges, Privacy, and Securing of Data. CRC Press. Doi: 10.1201/9781003141471-12.
2. Giri, K. J., **Jeelani, Z.**, Bhat, J. I., & Bashir, R. (2021). Survey on Reversible Watermarking Techniques for Medical Images. In: Giri K.J., Parah S.A., Bashir R., Muhammad K. (*eds*) Multimedia Security. Algorithms for Intelligent Systems, 177–198. Springer, Singapore. doi:10.1007/978-981-15-8711-5_9.

CONFERENCES AND SEMINARS

1. Yousuf, R., Khan, D. A., **Jeelani, Z.**, Bhat, O., & Teli, T. A. (2021). Blockchain vs Hashgraph: A Deeper Dive. 2021 IEEE sponsored International Conference on Emerging Trends in Industry 4.0 (ETI 4.0). 19-21, May 2021.
2. Yousuf, R., **Jeelani, Z.**, Khan, D. A., Bhat, O., & Teli, T. A. (2021). Consensus Algorithms in Blockchain-Based Cryptocurrencies. 2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT). doi:10.1109/icaect49130.2021.9392489.
3. Owais, B., **Jeelani, Z.**, & Khan, D.A., (2020). Deep Learning Techniques for Intrusion Detection. 2020, International Conference on Innovative Trends in Business & Technology iCITBT 2020, 71-71.
4. **Jeelani, Z.**, & Qadir, F. (2018). Dataset of Two-Dimensional Outer Totalistic Cellular Automata Rules for Digital Image Scrambling. Conference on Software Engineering and Data Sciences. June 20, 2018.
5. **Jeelani, Z.**, & Qadir, F. (2018). An Insight into Cellular Automata-Based Impulse Noise Filtration Algorithms. 1st International conference on recent developments in science, humanities and management-2018, 519-519.
6. **Jeelani, Z.**, & Qadir, F. (2018). Analysis of Cellular Automata-Based Image Scrambling Techniques. 13th Session of Jammu and Kashmir Science Congress, 609-609.
7. Owais, **Jeelani, Z.**, & Hassan, M. (2017). Machine Learning and Threat Detection: A Review. National Seminar on National Development through Science and Technology, 37-37.
8. Saleem, T., Sultan, T., Bhat, B.A., Ganai, N.A., & **Jeelani, Z.** (2017). Growth and yield of turnip as affected by row spacing and nitrogen levels under cold and arid conditions. National Seminar on National Development through Science and Technology, 219.
9. **Jeelani, Z.**, Hassan, M., Saleem, T., Bodha, A. R., & Owais. (2017). Influence of Artificial Intelligence on Agriculture. National Seminar on National Development through Science and Technology, 34-35.

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PROJECTS | FDPS

PROJECTS

PROJECTS SUPERVISED

1. **Kashmir Online Matrimonial System (2020)**
   Kashmir Online Matrimonial System was developed and submitted by a group of students to the Department of Computer Science, School of Technology, Islamic University of Science and Technology in partial fulfilment of the requirements for the award of the degree of Masters in Computer Applications under my supervision. The system is developed keeping in view the traditions and culture of Kashmir Valley in India. Apart from user profile management, profile verification mechanism, a recommender system based on the K-nearest neighbor (KNN) algorithm is developed as an important module in the system. The study for developing a fake profile detection module was also done in this project. The project was developed using Microsoft.NET.

PHD PROJECT

2. **Cellular Automata-Based Approach for Digital Image Scrambling with Emphasis on Specific Attacks (2020)**
   Cellular automata, a class of time and space discrete systems are composed of simple components that interact with other similar components in their local neighborhood to show a wide range of dynamic behavior. Very simple rules govern the evolution of cellular automata and despite this simplicity, cellular automata are capable of exhibiting very complex behavior and this property make them suitable for a wide variety of applications. Digital Image Scrambling refers to reordering image pixels in such a way that the scrambled image appears chaotic. A cellular automata-based digital image scrambling technique was during our Ph.D. research. Effect of different parameters that affect the dynamic behavior of cellular automata is studied to find the best set of values for these parameters to achieve best scrambling effect. Moreover, effect of specific attacks like salt-and-pepper, cropping and compression on scrambling degree is analyzed and cellular automata-based solutions proposed to enhance the quality of corrupted images.

GDCBANDIPORA.NET

3. **The gdcbandipora.com web application for HKM Govt. Degree College, Bandipore, J&K, India (2015)**
   This web app was developed for HKM Govt. Degree College, Bandipore, J&K, India. Apart from the information about the college, faculty, and departments, the web application also featured facilities to add/ delete departments, programmes, courses. A dedicated module for management of online study material was also developed. The website was developed using ASP.NET, C#, JavaScript, JQuery, Adobe Flash and MS SQLServer.

MCA PROJECT

4. **Electronic Paper Setting System (EPSS) (2012)**
   EPSS was developed and submitted to the Department of Computer Science, School of Technology, Islamic University of Science and Technology in partial fulfilment of the requirements for the award of the degree of Masters in Computer Applications. EPSS is a system for automating different activities pertaining to question paper setting like finalization of paper setter panel, formats of different papers, management of new departments, registration of new programmes and courses etc. EPSS provides facility of online paper setting request, preparation and submission. EPSS makes paper setting process fast and secure. The system was developed using ASP.NET, C#, JavaScript, JQuery and MS SQLServer.

FACULTY DEVELOPMENT PROGRAMS

1. One-Week Online Faculty Development Programme on "**Data Science using Python Programming**" organized by E&ICT Academy IIT Guwahati held from 02 to 09 November, 2020 in association with North Campus, University of Kashmir and support from PROBYTO.
2. Online Workshop/ Faculty Development Programme on "**Recent Trends in Information Technology**" organized by Islamic University of Science and Technology (IUST), J&K held from 12 to 18 September, 2020 in collaboration with Maulana Abul Kalam Azad University of Technology, West Bengal.

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TRAININGS | ACHIEVEMENTS

TRAININGS/WORKSHOPS

1. 5 Days Online Training Programme on "**Google Suite for E-Learning**" organized by Agricultural Research Information Systems (ARIS), SKUAST-K held from 21 to 25 September, 2020 and sponsored by National Agricultural Higher Education Project (NAHEP), SKUAST-K.
2. National workshop on "**Scholarly Writing, Reference Management and Deterring Plagiarism**" organized by Allama Iqbal Library, University of Kashmir held from 22 to 23 March, 2017.
3. 10 days training programme on "Big Data Analytics" organized by the Department of Information Technology, National Institute of Technology Srinagar held from 10 to 20 March, 2017 and sponsored by the Department of Science and Technology (DST), Government of India.
4. **Computer Accounting with Tally** at Islamic University of Science and Technology, Kashmir conducted by National Institute for Entrepreneurship and Small Business Development (Ministry of Micro, Small & Medium Enterprises, Govt. of India) A-23, Institutional Area, Sector-62, Noida-201 301 (U.P.) from October 18, 2011 to January 07, 2012.
5. 2 months "**Project Training (.NET)**" at karROX Technologies Ltd., New Delhi held from February, 2012 to March, 2012.

ADDITIONAL QUALITICATIONS

1. **AI for Everyone –** an online non-credit course authorized by DeepLearning.AI and offered through Coursera. Verify at: coursera.org/verify/ ELSYJYJHR8UW (Completed January 17, 2022)
2. **Neural Networks and Deep Learning –** an online non-credit course authorized by DeepLearning.AI and offered through Coursera. Verify at: coursera.org/verify/SY3YDSYVHWZE (Completed December26, 2021)
3. **Diploma in Business Management** from The Institute of Chartered Financial Analysts of India University, Tripura in 2010.
4. **Diploma in Computer Programming** from Rashtriya Computer Sakshartha Mission (An autonomous institution registered under Public Trust Act) at Asset College of Computer, Down Town Sopore, J&K in 2009.
5. **One Year Diploma in Computer Applications and Multilingual DTP** from DOEACC Centre, Chandigarh and NCPUL, Ministry of Human Resource Development, Govt. of India at Computer Applications Multilingual DTP Centre at Shahi Hamdan Computer Education Centre Sopore (J&K) in 2005.

ACHIEVEMENTS

1. **Qualified GATE-2021**--National Coordination Board (NCB)-GATE, Department of Higher Education, Ministry of Education, Govt. of India. *Graduate Aptitude Test in Engineering (GATE) is an examination conducted in India that primarily tests the comprehensive understanding of various undergraduate subjects in engineering and science for admission into the Master's Program and Job in Public Sector Companies.*
2. **Qualified UGC NET-2019**
   The National Eligibility Test (NET), also known as UGC NET, is the examination for determining the eligibility for the post of assistant professor and/or Junior Research Fellowship award in Indian universities and colleges.
3. **Qualified JK-SET 2017-18**
   The Jammu and Kashmir State Eligibility Test (JK-SET), is the examination for determining the eligibility for the post of assistant professor in the UT of Jammu and Kashmir universities and colleges.
4. **Certificate of Appreciation - 2018**
   Awarded in recognition of outstanding service as Member of Organizing Committee of Conference on Software Engineering and Data Sciences (CoSEDS 2018) University of Kashmir, June 20-21, 2018.

Zubair Jeelani
January 17, 2022