

Dr. Muhammad Arif Butt Assistant Professor, Department of Data Science, University of the Punjab, Quaid-i-Azam (New) Campus, Lahore, Pakistan. Website: <http://www.arifbutt.me> Email: arif@pucit.edu.pk, arifpucit@gmail.com YouTube Channel: <https://www.youtube.com/c/LearnWithArif> ORCID ID: 0000-0002-7045-7618 Office Telephone: +92-(0)42-111-923-923 Extension: 133 Cell. Phone: +92-(0)321-4456454 (Updated: Dec 01, 2023) Summary - Dr. Muhammad Arif Butt is an Assistant Professor at University of the Punjab, since 2008. - His academic, teaching, administrative and entrepreneurial experience span over 32 years. - He has served as In-Charge /Principal of the largest constituent College of University of the Punjab having 185 faculty and staff members and a student body of over 2500. - As Chief Security Officer planned and executed security to over 45000 on-campus students and 7000 employees located at 5 campuses of the University having a total area of 1800 acres. - Annual funds management of over 300 million. - CEO of a startup having 30+ employees and corporate management of over 20 million per year. - 1st position and University Gold Medal both in undergraduate and graduate degrees. - Served in the Armed Forces of Pakistan as an officer and has the honor of serving as an Instructor at the School of Infantry and Tactics Quetta – a prestigious training institute of Pakistan Army. Academic Qualifications Examinations Institutions Year Division PhD (CS) University of the Punjab Lahore, Pakistan 2019 1st MPhil (CS) University of the Punjab Lahore, Pakistan 2009 1st (Gold Medal) MSc (CS) University of the Punjab Lahore, Pakistan 2005 1st (Gold Medal) Graduation Pakistan Military Academy Kakul 1989 1st Intermediate Govt. Science College Lahore 1986 1st Matriculation Don BosCo High School Lahore 1985 1st Experience / Employment History (32 years of professional experience) 2020 – to date Assistant Professor, Department of Data Science, University of the Punjab, Lahore, Pakistan 2018 - 2020 Worked as In-charge/Principal Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan 2008 - 2018 Assistant Professor, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan 2005 - 2008 Lecturer, Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan 2002 - 2005 Project Manager Star Solutionz, Lahore, Pakistan 2000 - 2002 Project Manager Gates College of Computer Science & Software Engineering, Lahore 1989 – 2000 Served at different field, staff and instructional appointments in Pakistan Army Awards / Achievements University gold medal in MPhil (Computer Science) from Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan University gold medal in MSc (Computer Science) from Punjab University College of Information Technology, University of the Punjab, Lahore, Pakistan Ranked among the top three best teachers throughout the teaching carrier at Punjab University College of Information Technology, University of the Punjab Over 200 highly ranked/viewed video lectures on six different subjects available on YouTube channel <https://www.youtube.com/c/LearnWithArif/playlists> During the stay in uniform, have the honor to serve in the snowy mountains of Kashmir and Siachin During the stay in uniform, served as Instructor at School of Infantry & Tactics Quetta, Pakistan Research & Publications Books A. Butt (2010), Taxonomy of IDS: Intrusion Detection using System Call Sequence, VDM Verlag Dr. Müller, ISBN: 3639294092 Journal Articles 22. S. A. Khan, M. Abdullah, W. Iqbal, M. A. Butt, “Efficient Job Placement using Two-way Offloading Technique over Fog-Cloud Architectures”, Cluster Computing, 2022, Cluster Computing doi: 10.1007/s10586-022-03750-9 (ISSN 1386-7857, HEC W Category) 21. S. A. Khan, M. Abdullah, W. Iqbal, M. A. Butt, F. Bukhari and

S. -U. Hassan, "Automatic Migration Enabled Dynamic Resource Management for Containerized Workload", IEEE Systems Journal, 2022, doi: 10.1109/JSYST.2022.3204748 (ISSN 1937-9234, HEC W Category) 20. M. A. Butt, Z. Ajmal, Z. I. Khan, M. Idrees, Y. Javed, "An In-Depth Survey of Bypassing Buffer Overflow Mitigation Techniques", Applied Sciences, vol. 12, no. 13, pp. 1-30, 2022 (ISSN 1454-5101, HEC X Category) 19. M. A. Butt, M. Idrees, and Muhammad Saleem Raza, "Designing Fuzzy Logic Controller for UNIX Fuzzy find Command", VFAST Transactions on Software Engineering, vol. 10, no. 2, pp 17-26. 2022, (ISSN 2411-6246, HEC Y Category) 18. H. R. Ahmad, M. Idrees, A. Ahmad, M. A. Butt, S. Shahzad, M. Shahzad, "Unification of Programming Languages", Webology, vol. 19, no. 3, pp. 423-457, 2022 (ISSN 1735-188X, HEC Y Category) 17. A. Sohail, M. I. Tariq, S. Ali, M. A. Butt, M. Ismail, and F. Ahmad, "Diabetic Patient's Behavior Observation on Social Media Using Active Surveillance", Journal of Intelligent and Fuzzy Systems, vol. 43, no. 2, pp. 1969-1984, 2022 (ISSN 1875-8967, HEC W Category) 3 16. M. Idrees, M. A. Butt, and A. Ahmad, "Unification of Programming Languages, A Step Towards Visual Programming", International Journal of Next-Generation Computing, vol. 12, no. 4, pp. 507-517, 2021 (HEC Y Category) 15. M. Idrees, A. Ahmad, M. A. Butt, and H. M. Danish, "Controlling PowerPoint using Hand Gestures in Python", Webology, ISSN 1735-188X, vol. 18, no. 6, pp. 1372-1388, 2021 (HEC Y Category) 14. A. Sohail, A. Haseeb, M. Rehman, D. D. Dominic, and M. A. Butt, "An Intelligent Graph Edit Distance Based Approach for Finding Business Process Similarities", Computers, Materials & Continua, vol. 69, no. 3, pp. 3603-3618, 2021 (I.F 4.89, HEC W Category) 13. A. Ahmad, M. Idrees, M. A. Butt, and H. M. Danish, "BBVPL: A Block-Based Visual Programming Language Built on Google's Blockly", International Journal of Advanced Trends in Computer Science and Engineering, vol. 10, no. 3, pp. 2524-2532, 2021 (HEC Y Category) 12. A. Sohail, D. D. Dominic, M. Hijji, and M. A. Butt, "Competency Driven Resource Evaluation Method for Business Process Intelligence", Computers, Materials & Continua, vol. 69, no. 1, pp. 1141-1157, 2021 (I.F 4.89, HEC W Category) 11. S. Habib, A. Ashraf, M. A. Butt, and M. Ahmad, "Medical Diagnosis Based on Single-valued Neutrosophic Information", Neutrosophic Sets and Systems, vol. 42, pp. 302-323, 2021 (HEC Y Category) 10. M. Akram, G. Ali, A. Butt, and J. C. R. Alcantud, "Novel MCGDM Analysis under m-Polar Fuzzy Soft Expert Sets", Neural Computing and Applications, <https://doi.org/10.1007/s00521-021-05850-w>, pp. 1-24, 2021 (I.F 4.774, HEC W Category) 9. G. Shahzadi, G. Muhiuddin, A. Butt, and A. Ashraf, "Hamacher Interactive Hybrid Weighted Averaging Operators under Fermatean Fuzzy Numbers", Journal of Mathematics, vol. 2021, pp. 1-17, 2021 (I.F 0.712, HEC Y Category) 8. A. Ashraf and M. A. Butt, "Extension of TOPSIS Method under Single-Valued Neutrosophic N-Soft Environment", Neutrosophic Sets and Systems, vol. 41, pp. 286-303, 2021 (HEC Y category) 7. N. Tahir, M. Asif, S. Ahmad, M. Sheraz, A. Malik, H. Aljuaid, A. Butt, and M. Rehman "FNG-IE: an improved graph-based method for keyword extraction from scholarly big-data", PeerJ Computer Science, <https://doi.org/10.7717/peerj-cs.389>, pp. 1-24, 2021 (I.F 3.091, HEC W Category) 6. M. Akram, G. Shahzadi, A. Butt and F. Karaaslan, "A hybrid decision making method based on q-rung orthopair fuzzy soft Information", Journal of Intelligent & Fuzzy Systems, <https://doi.org/10.3233/JIFS-202336>, pp. 1-16, 2021 (I.F 1.851, HEC W Category) 5. A. Sohail, K. Shahzad, P. D. Dominic, A. Butt, M. Arif and M. I. Tariq, "On Computing the Suitability of Non-Human Resources for Business Process Analysis", Computers, Materials & Continua, vol. 67, no. 1, 2021 (I.F 4.89, HEC W Category) 4. S. Habib, S. Wardat, A. Butt, M. Akram, F.

Smarandache, "A Neutrosophic Clinical Decision-making System for Cardiovascular Diseases Risk Analysis", Journal of Intelligent & Fuzzy Systems, ISSN 1875- 8967, vol. 39, no. 5, pp. 7807-7829, 2020 (IF 1.851, HEC W Category) 3. A. Butt and M. Akram, "A new intuitionistic fuzzy rule-based decision-making system for an operating system process scheduler", SpringerPlus/SpringerOpen, vol.5, no. 1, pp. 1-17, 2016 (IF 1.130, HEC W Category) 2. A. Butt and M. Akram, "A novel fuzzy decision-making system for CPU scheduling algorithm", Neural Computing and Applications, ISSN 0941-0643, vol. 27, no. 7, pp. 1927-1939, 2016 (I.F. 4.774, HEC W Category) 1. M. Akram, S. Shahzad, A. Butt, and A. Khaliq, "Intuitionistic Fuzzy Logic Control for Heater Fans", Mathematics in Computer Science, ISSN 1661-8289, vol. 7, no. 3, pp. 367-378, 2013 (I.F. 0.76, HEC W Category) 4 Research Supervision PhD Candidates under Supervision 1. PHDCSF19M005 – Imran Javaid Bhatti, "Designing Fuzzy Logic Based Intelligent Systems for Diagnosis of Human Disease" 2. PHDDSF22M002 – Muhammad Saleem Raza, Graduate (PhD) Thesis Supervised 1. PHDCSF16M005 – Muhammad Saad, "Adaptive Heterogeneous Resource Allocation of Containerized Infrastructure" Graduate (MPhil) Thesis Supervised 1. MSCSF19M024 – Muhammad Ali Tariq, Fuzzification of Virtualized Resources in Cloud computing 2. MSCSF19M015 – Zarafshan Ajmal, "A Survey on By-passing x86-64 Buffer Over Flow Mitigation Techniques" 3. MSGSF16M013 – Muhammad Mubeen Maroof, "Fuzzy GIS Based Impact of Climate Change on Agriculture Drought" 4. MSGSF17M011– Muhammad Nasir, "Assessment of urban Gentrification in engulfed villages of Lahore using GIS: A Case study of Gohawa Village" 5. MSCSF06M005 – Muhammad Saleem Raza, "Applying Fuzzy Decision-Making Models in Memory Management of Operating Systems" Undergraduate (BS/MSc) Thesis/Projects Supervised 1. Najam-ul-Saqib, "GraphQL in Scope: An In-Depth Approach on How GraphQL APIs Can Be Exploited". 2020-2021 2. Amina Saif, Hadia Shafiq, "Elxion of Network Analysis, Penetration Testing and Vulnerability Exploitation". 2020-21 3. Huzaifa Khalid, Qurat-ul-Ain, "An In-depth Discussion on Stack Smashing via Buffer Overflow: Bypassing Mitigation Techniques on ARM, MIPS, x86-64". 2020-21 4. Najam-ud-Din, Abdul Hanan, Muhammad Harris, Muteeb Ahmed, "Silk OS: A Linux Distribution", June, 2020. 5. Sami Masood, Maryam Saif, Ahtisham, Komal Shahzadi, Samam Raza, "A survey on Open Source Teaching Operating System and Linux Loadable Kernel Modules", June 2020. 6. Ayesha Amer, Sameen Mehtab, Raveeha Kamran, Zain Rizwan, Zeeshan Tariq, "Survey and Exploitation of Computer System Vulnerabilities and By-passing Buffer Overflow", June 2020 7. Talha Hanif, Faisal, Jahanzeb Khan, "IOT Based Irrigation and Fertilization system with Decision Support", June 2019 8. Muhammad Anas, Hamza Habib, Mutasim, Zain-ul-Abidin, Syed Uzair, "Fuzzified Vision Based Real Time Embedded Entrance Control System", June 2019 9. Waqas, Nabeela, Nabeel, Umer, "Teachers Book, A mobile App", June 2018 10. Adeel, Waqar, Farooq, "A Survey on Network and Web Security Infrastructures, Vulnerabilities and Intrusion Detection System", June 2018 11. Sana, Tehreem, Mariam, "PUCIT: IOT Based Smart Campus with Andorid Control", June 2018 12. Muhammad Mohsin, Anas, Abdullah Waheed, "The Virtual Guardian", June 2018 13. Asab Bashir, Ayaz Khalid, Haider Ali, Abdul Rehman, Adil Farhan, "Design of Campus Versioning System (CVS)", June 2017 14. Abdul Wahab, Muhammad Danish, "Accessing and Enhancing IT Infrastructure of an Organization", June 2017 5 Services National Level 1. Member of the Senate, University of Baltistan, Skardu, Pakistan Member 2. Interviewing panel of Federal Public Service Commission (FPSC), Pakistan Subject Specialist 3. Technical Education and Vocational Training Authority (TEVTA), Government of the Punjab IT

Advisor University Level 1. Member Selection Board, University of the Punjab, Lahore Subject Specialist 2. Board of Faculty of Science Member 3. Academic Council Member 4. PU Convocation Committee Member 5. Chief Security Officer All Campuses 6. Board of Faculty of Computing and Information Technology (D/8591 dated 26/08/2021) Member Department Level 1. In-Charge/Principal, PUCIT - 2. Departmental Doctoral Program Committee Member 3. Departmental Tenure Review Committee (DTRC) Member 4. Departmental Purchase Committee Chairman 5. Board of Studies Member 6. Program Team for Self-Assessment Report (QEC) Chairman 7. Financial Aid Committee Member 8. Disciplinary Committee Chairman 9. Graduate Admission Committee Chairman 10. Undergraduate Admission Committee Chairman 11. Degree Coordinator (Computer Science) - 12. Unfair Means Committee Member 13 Domain Head Operating System and Computer Architecture Chairman 14. College Council Member 15. Sports Society Chairman 16. Security Committee, PUCIT Old Campus Chairman 17. Dress Code Committee Chairman

6 Courses Taught Graduate level
 courses
 Code Course Title
 CS-525 Advanced Operating Systems
 CS534 Advanced Computer Architecture
 DS-522 Tools and Techniques for Data Science *
 DS-751 Advance Machine Learning *
 * Developed Courses with Practical Hands on Labs
 Undergraduate courses
 Code Course Title
 CS-325 Operating Systems *
 CS-321 System Programming *
 CMP-120 Digital Logic Design
 CMP-223 Computer Organization and Assembly Language Programming *
 CMP-100 Introduction to Computing
 CMP-330 Practical Inter-networking with UNIX TCP/IP *
 CMP-140 Programming Fundamentals with C/C++ *
 * Developed Courses with Practical Hands on Labs

References: Prof. Dr. Muhammad Akram Chairman, Department of Mathematics, University of the Punjab, Quaid-i-Azam (New) Campus, Lahore, Pakistan. Email: makram@pucit.edu.pk, makrammath@yahoo.com Cell. Phone: +92-(0)333-4510258 Prof. Dr. Syed Mansoor Sarwar Vice Chancellor, University of Engineering & Technology, Lahore, Pakistan. Email: vc@uet.edu.pk Cell. Phone: +92-(0)300-4172637