

## RECENT PUBLICATIONS

1. Dewan Tauhid Rahman, Nickolas Goodis, and Dilip Sarkar, "A Semi-Automatic Approach for Minimizing Expert Annotations in Medical Image Segmentation," *The 2025 International Conference on the AI Revolution: Research, Ethics, and Society (AIR-RES 2025)*, Las Vegas, USA, 2025.
2. Pragatheeswaran Vipulanandan, Kamal Premaratne, Dilip Sarkar, and Manohar N. Murthi, "A Quantum Tensor Network-Based Viewpoint for Modeling and Analysis of Time Series Data," *15th IEEE International Conference on Knowledge Graphs (ICKG2024)*, Abu Dhabi, UAE, 2024.
3. Nathaniel Dean and Dilip Sarkar, "Novel Deep Neural Network Classifier Characterization Metrics with Applications to Dataless. Evaluation," *Intelligent Systems Conference (IntelliSyst) 2024*, Amsterdam, Netherlands, 2024
4. C. Connors and D. Sarkar, "Machine Learning for Detecting Malware in PE Files," *2023 International Conference on Machine Learning and Applications (ICMLA)*, Jacksonville, FL, USA, 2023, pp. 2194-2199, doi: 10.1109/ICMLA58977.2023.00331. keywords: Reviews;Machine learning;Benchmark testing;Feature extraction;Malware;Vectors;Computer security;Malware;PE Files;Machine Learning,
5. C. Connors and D. Sarkar, "Review of Most Popular Open-Source Platforms for Developing Blockchains," *Fourth International Conference on Blockchain Computing and Applications (BCCA)*, 2023, pp. 20-26, doi: 10.1109/BCCA55292.2022.9922396
6. Collin Connors and Dilip Sarkar, "Survey of prominent blockchain development platforms," *Journal of Network and Computer Applications*, vol. 216 (12 pages), July 2023
7. Nathaniel Dean and Dilip Sarkar, "DNN Feature Map Gram Matrices for Mitigating White-Box Attacks on Image Classification," *2023 International Conference on Intelligent Computing, Communication, Networking and Services (ICCNS)*, 2023 , pp. 111-118, doi: 10.1109/ICCNS58795.2023.10193579
8. Nathaniel Dean and Dilip Sarkar, "Fantastic DNN Classifiers and How to Identify them without Data," *arXiv preprint arXiv:2305.15563*, 2023.
9. C. Connors and D. Sarkar, "PBL: System for Creating and Maintaining Personal Blockchain Ledgers," *arXiv preprint arXiv:2305.04723*, 2023, 15 pages.
10. Nathaniel Dean and Dilip Sarkar, "A Perturbation Resistant Transformation and Classification System for Deep Neural Networks," *arXiv preprint arXiv:2208.11839*, 2022.
11. H. L. Radabaugh, J. Bonnell, W. D. Dietrich, H. M. Bramlett, O. Schwartz and D. Sarkar, "Development and Evaluation of Machine Learning Models for Recovery Prediction after Treatment for Traumatic Brain Injury," *42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*, Montreal, QC, Canada, 2020, pp. 2416-2420, doi: 10.1109/EMBC44109.2020.9175658.
12. H Radabaugh, J Bonnell, Z Nemeth, L Uddin, Shapiro, Lauren, D Sarkar, "Probing The Operation Brain Trauma Therapy Dataset Using Machine Learning Techniques," *Journal Of Neurotrauma*, Vol. 36, pp. A10-10, 2019. 1 page
13. Hannah Radabaugh, Jerry Bonnell, Odelia Schwartz, Dilip Sarkar, C Edward Dixon, Patrick Kochanek, W Dalton Dietrich, Helen Bramlett, "MULTIVARIATE RECOVERY AFTER BRAIN INJURY DIFFERS BETWEEN DRUG THERAPIES AND MODEL USED: OPERATION BRAIN TRAUMA THERAPY," *JOURNAL OF NEUROTRAUMA*, vol. 38, pp. A33-A33, 2021

14. Hannah Radabaugh, Jerry Bonnell, Odelia Schwartz, Dilip Sarkar, Dalton W. Dietrich, and Helen M Bramlett, "Use of Machine Learning to Re-Assess Patterns of Multivariate Functional Recovery after Fluid Percussion Injury: Operation Brain Trauma Therapy," *Journal of Neurotrauma*, vol. 38, pp. 1670–1678, June 15 2021, doi: 10.1089/neu.2020.7357; earlier versions were published online as "Operation Brain Trauma Therapy (OBTT): the use of machine learning to re-assess patterns of multivariate functional recovery following fluid percussion injury," in October 27 2020 and January 13 2021.
15. Lokesh Ramamoorthi and Dilip Sarkar, "Single Sign-On: A Solution Approach to Address Inefficiencies During Sign-Out Process," *IEEE Access*, vol. 8, pp. 195675–195691, 2020.
16. L. G. Polpitiya, K. Premaratne, M. N. Murthi, S. J. Murrell and D. Sarkar, "Efficient Computation of Conditionals in the Dempster-Shafer Belief Theoretic Framework," *IEEE Transactions on Cybernetics*, Vol 52, pp. 2931–2941, 2020.
17. H. L. Radabaugh, J. Bonnell, W. D. Dietrich, H. M. Bramlett, O. Schwartz and D. Sarkar, "Development and Evaluation of Machine Learning Models for Recovery Prediction after Treatment for Traumatic Brain Injury," *42nd Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)*, Montreal, QC, Canada, 2020, pp. 2416–2420, doi: 10.1109/EMBC44109.2020.9175658.
18. Ramamoorthi L., Sarkar D. "Single Sign-on Implementation: Leveraging Browser Storage for Handling Tabbed Browsing Sign-outs. In: Rocha Á., Pereira R. (eds) *Developments and Advances in Defense and Security*," in Smart Innovation, Systems and Technologies, Vol 152. Springer, 2020, Singapore.
19. J Y Kim, W Hu, D Sarkar, S. Jha, "Long-term secure management of large scale Internet of Things applications," *Journal of Network and Computer Applications*, Vol 138, pp. 15–26, 2019. 12 pages
20. B Koc, Z Arnavut, D Sarkar, H Koçak, "Technique for lossless compression of color images based on hierarchical prediction, inversion, and context adaptive coding," *Journal of Electronic Imaging*, Vol. 28, no. 5, 2019. 11 pages
21. I García-Magariño, D Sarkar, R Lacuesta, "Wearable Technology and Mobile Applications for Healthcare" *Mobile Information Systems*, 2019. Editorial for a special issue of the journal. 2 pages
22. Lokesh Ramamoorthi and Dilip Sarkar; "Single Sign-on Demystified: Security Considerations for Developers and Users," accepted for presentation and publication in *Proceedings of the 6th World Conference on Information Systems and Technologies*, to be held at Naples, Italy, 27 - 29 March 2018. 10 pages
23. A. Yessemayev, D. Sarkar and F. Sikder, "Detection of Good and Bad Sensor-Nodes in Presence of Malicious Attacks, and Its Application to Data Aggregation," *IEEE Transactions on Signal and Information Processing over Networks*, vol. 4, no. 3, pp. 549–563, 13 Sept. 2018.
24. F. Sikder and D. Sarkar, "Log-Sum Distance Measures and Its Application to Human-Activity Monitoring and Recognition Using Data From Motion Sensors," *IEEE Sensors Journal*, vol. 17, no. 14, pp. 4520–4533, 15 July 2017.
25. Kim, Jun Young and Hu, Wen and Sarkar, Dilip and Jha, Sanjay; "ESIoT: Enabling Secure Management of the Internet of Things," in *Proceedings of the 10th ACM Conference on Security and Privacy in Wireless and Mobile Networks, WiSec '17*, 2017, pp 219–229.
26. F. Sikder, D. Sarkar, O. Schwartz and C. K. Thomas, "Method for concurrent processing of EMG signals from multiple muscles for identification of spasms," in *IEEE Signal Processing in Medicine and Biology Symposium (SPMB)*, Philadelphia, PA, USA, 2017, pp. 1–6.
27. Lalintha G. Polpitiya, Kamal Premaratne, Manohar N. Murthi, and Dilip Sarkar; "Efficient Computation of Belief Theoretic Conditionals," in *Proceedings of the Tenth International Symposium on Imprecise Probability: Theories and Applications*, vol 62, pp. 265–276, 2017.

28. R. Dabarera, K. Premaratne, M. N. Murthi and D. Sarkar, "Consensus in the Presence of Multiple Opinion Leaders: Effect of Bounded Confidence," *IEEE Transactions on Signal and Information Processing over Networks*, Vol. 2, no. 3, pp. 336-349, Sept. 2016.
29. S. W. Abeyruwan, D. Sarkar, F. Sikder and U. Visser, "Semi-Automatic Extraction of Training Examples From Sensor Readings for Fall Detection and Posture Monitoring," *IEEE Sensors Journal*, Vol. 16, no. 13, pp. 5406-5415, July, 2016.
30. Z. Abaid, D. Sarkar, M. A. Kaafar and S. Jha, "The Early Bird Gets the Botnet: A Markov Chain Based Early Warning System for Botnet Attacks," 2016 IEEE 41st Conference on *Local Computer Networks (LCN)*, Dubai, UAE, pp. 61-68, 2016.
31. D. Sarkar, "Backoff-state assignment for channel throughput maximization of wireless networks," not approved US patent application # 60/662,231