

Selected Articles

Please note that

- you can also choose a theme and propose an alternative paper;
- for each paper topic you can receive or propose a practical project in Python.

1. J.K. Karhunen et al., **Generalizations of Principal Component Analysis, Optimization Problems, and Neural Networks**, Neural Networks, vol. 8, no. 4, pp. 549-562, 1995
2. F.-L. Vincent; et al., **An Introduction to Deep Reinforcement Learning**, Foundations and Trends in Machine Learning, 11 (3–4): 219–354, 2018
3. H. Kaiming, **Deep Residual Learning for Image Recognition**, IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016
4. N. Tishby et al., **Deep learning and the information bottleneck principle**, IEEE Information Theory Workshop (ITW), 2015
5. A. Radford et al., **Unsupervised Representation Learning with Deep Convolutional Generative Adversarial Networks**, ICLR 2016
6. D. Guera et al., **Deepfake Video Detection Using Recurrent Neural Networks**, 15th IEEE International Conference on Advanced Video and Signal Based Surveillance (AVSS), 2018
7. E. Di Nardo, A. Ciaramella, **Advanced Fuzzy Relational Neural Network**, CEUR, Workshop Proceedings, 3074, 2021;
8. A. Fernandez et al., **Evolutionary Fuzzy Systems for Explainable Artificial Intelligence: Why, When, What for, and Where to?**, IEEE Computational Intelligence Magazine, 2019
9. M. Islam et al., **Enabling Explainable Fusion in Deep Learning With Fuzzy Integral Neural Networks**, in *IEEE Transactions on Fuzzy Systems*, vol. 28, no. 7, pp. 1291-1300, July 2020, doi: 10.1109/TFUZZ.2019.2917124
10. A. Ciaramella et al., **Fuzzy relational neural network**, International Journal of Approximate Reasoning, Volume 41, Issue 2, 2006, Pages 146-163
11. J. Lu et al., **Learning under Concept Drift: A Review**, in *IEEE Transactions on Knowledge and Data Engineering*, vol. 31, no. 12, pp. 2346-2363, 1 Dec. 2019, doi: 10.1109/TKDE.2018.2876857
12. M Yurochkin et al., **Bayesian nonparametric federated learning of neural networks**, Proceedings of Machine Learning Research, 2019
13. E. Adeli et al., **Bias-Resilient Neural Network**, ICLR 2020
14. M.V.Altaisky, **Quantum Neural Network**, arxiv.org

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15. C. Liu, **Spike Neural Network Learning Algorithm Based on an Evolutionary Membrane Algorithm**, IEEE Access
16. Z. Wu et al., **A Comprehensive Survey on Graph Neural Networks**, in *IEEE Transactions on Neural Networks and Learning Systems*, vol. 32, no. 1, pp. 4-24, Jan. 2021
17. P. Pope et al., **Explainability Methods for Graph Convolutional Neural Networks**, Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)}, 2019
18. N. Burkart et al., **A survey on the explainability of supervised machine learning**, Journal of Artificial Intelligence Research, 2021
19. H. M. Akinci and E. Yesil, **Emotion modeling using Fuzzy Cognitive Maps**, 2013 IEEE 14th International Symposium on Computational Intelligence and Informatics (CINTI), 2013, pp. 49-55, doi: 10.1109/CINTI.2013.6705252.
20. A. Ciaramella et al., **The Genetic Development of Ordinal Sums**, Fuzzy Sets and Systems, vol. 151, pp. 303-325, doi: 10.1016/j.fss.2004.07.003, ISSN: 0165-0114, 2005;
21. D. Nardone et al., **A Sparse-Modeling Based Approach for Class Specific Feature Selection**, PeerJ Computer Science, 5:e237, doi.org/10.7717/peerj-cs.237, 2019
22. A. Ciaramella et al., **Data Integration by Fuzzy Similarity-Based Hierarchical Clustering**, BMC Bioinformatics, 21, 350, doi.org/10.1186/s12859-020-03567-6, 2020
23. A. de Falco, **Adaptive One-Class gaussian processes allow accurate prioritization of oncology drug targets**, Bioinformatics, 37 (10), pp. 1420-1427, doi.org/10.1093/bioinformatics/btaa968, 2021
24. F. Camastra et al., **A fuzzy decision system for genetically modified plant environmental risk assessment using Mamdani inference**, Expert Systems with Applications, 42 (3), pp. 1710-1716, ISSN: 09574174, doi: 10.1016/j.eswa.2014.09.041, 2015
25. A. Patel et al., **Construction of Similarity Measure for Intuitionistic Fuzzy Sets and its Application in Face Recognition and Software Quality Evaluation**. Available at SSRN: <https://ssrn.com/abstract=4137574> or <http://dx.doi.org/10.2139/ssrn.4137574>
26. K. Han et al., **A Survey on Vision Transformer**, in IEEE Transactions on Pattern Analysis and Machine Intelligence, doi: 10.1109/TPAMI.2022.3152247