Priyadarshini Panda

List of Publications by Year
in descending order

49 papers	2,671 citations	304743 22 h-index	361022 35 g-index
49 all docs	49 docs citations	49 times ranked	2350 citing authors

#	Article	IF	Citations
1	NEAT: Nonlinearity Aware Training for Accurate, Energy-Efficient, and Robust Implementation of Neural Networks on 1T-1R Crossbars. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 2625-2637.	2.7	8
2	Noise Sensitivity-Based Energy Efficient and Robust Adversary Detection in Neural Networks. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 1423-1435.	2.7	5
3	Rate Coding Or Direct Coding: Which One Is Better For Accurate, Robust, And Energy-Efficient Spiking Neural Networks?. , 2022, , .		17
4	Neural Computing With Magnetoelectric Domain-Wall-Based Neurosynaptic Devices. IEEE Transactions on Magnetics, 2021, 57, 1-9.	2.1	7
5	DetectXâ€"Adversarial Input Detection Using Current Signatures in Memristive XBar Arrays. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4482-4494.	5.4	3
6	Efficiency-driven Hardware Optimization for Adversarially Robust Neural Networks. , 2021, , .		7
7	Implicit adversarial data augmentation and robustness with Noise-based Learning. Neural Networks, 2021, 141, 120-132.	5.9	9
8	Visual explanations from spiking neural networks using inter-spike intervals. Scientific Reports, 2021, 11, 19037.	3.3	15
9	Domain Adaptation Without Source Data. IEEE Transactions on Artificial Intelligence, 2021, 2, 508-518.	4.7	56
10	Optimizing Deeper Spiking Neural Networks for Dynamic Vision Sensing. Neural Networks, 2021, 144, 686-698.	5.9	39
11	Federated Learning With Spiking Neural Networks. IEEE Transactions on Signal Processing, 2021, 69, 6183-6194.	5.3	21
12	Revisiting Batch Normalization for Training Low-Latency Deep Spiking Neural Networks From Scratch. Frontiers in Neuroscience, 2021, 15, 773954.	2.8	46
13	Tree-CNN: A hierarchical Deep Convolutional Neural Network for incremental learning. Neural Networks, 2020, 121, 148-160.	5.9	138
14	Energy-efficient and Robust Cumulative Training with Net2Net Transformation. , 2020, , .		1
15	Enabling Spike-Based Backpropagation for Training Deep Neural Network Architectures. Frontiers in Neuroscience, 2020, 14, 119.	2.8	196
16	Toward Scalable, Efficient, and Accurate Deep Spiking Neural Networks With Backward Residual Connections, Stochastic Softmax, and Hybridization. Frontiers in Neuroscience, 2020, 14, 653.	2.8	58
17	A Low Effort Approach to Structured CNN Design Using PCA. IEEE Access, 2020, 8, 1347-1360.	4.2	32
18	Organismic materials for beyond von Neumann machines. Applied Physics Reviews, 2020, 7, .	11.3	30

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19	Inherent Adversarial Robustness of Deep Spiking Neural Networks: Effects of Discrete Input Encoding and Non-linear Activations. Lecture Notes in Computer Science, 2020, , 399-414.	1.3	40
20	QUANOS. , 2020, , .		14
21	Synthesizing Images From Spatio-Temporal Representations Using Spike-Based Backpropagation. Frontiers in Neuroscience, 2019, 13, 621.	2.8	12
22	A Comprehensive Analysis on Adversarial Robustness of Spiking Neural Networks. , 2019, , .		30
23	Structured Learning for Action Recognition in Videos. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2019, 9, 475-484.	3.6	0
24	Analysis of Liquid Ensembles for Enhancing the Performance and Accuracy of Liquid State Machines. Frontiers in Neuroscience, 2019, 13, 504.	2.8	34
25	Discretization Based Solutions for Secure Machine Learning Against Adversarial Attacks. IEEE Access, 2019, 7, 70157-70168.	4.2	30
26	Exploiting Inherent Error Resiliency of Deep Neural Networks to Achieve Extreme Energy Efficiency Through Mixed-Signal Neurons. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 1365-1377.	3.1	10
27	Evaluating the Stability of Recurrent Neural Models during Training with Eigenvalue Spectra Analysis. , 2019, , .		0
28	Towards spike-based machine intelligence with neuromorphic computing. Nature, 2019, 575, 607-617.	27.8	869
29	STDP-Based Pruning of Connections and Weight Quantization in Spiking Neural Networks for Energy-Efficient Recognition. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 668-677.	2.7	65
30	Deep Spiking Convolutional Neural Network Trained With Unsupervised Spike-Timing-Dependent Plasticity. IEEE Transactions on Cognitive and Developmental Systems, 2019, 11, 384-394.	3.8	65
31	ASP: Learning to Forget With Adaptive Synaptic Plasticity in Spiking Neural Networks. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 51-64.	3.6	37
32	STDP-based Unsupervised Feature Learning using Convolution-over-time in Spiking Neural Networks for Energy-Efficient Neuromorphic Computing. ACM Journal on Emerging Technologies in Computing Systems, 2018, 14, 1-12.	2.3	24
33	SpiLinC: Spiking Liquid-Ensemble Computing for Unsupervised Speech and Image Recognition. Frontiers in Neuroscience, 2018, 12, 524.	2.8	23
34	Energy Efficient Neural Computing: A Study of Cross-Layer Approximations. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 796-809.	3.6	32
35	Training Deep Spiking Convolutional Neural Networks With STDP-Based Unsupervised Pre-training Followed by Supervised Fine-Tuning. Frontiers in Neuroscience, 2018, 12, 435.	2.8	121
36	Learning to Recognize Actions From Limited Training Examples Using a Recurrent Spiking Neural Model. Frontiers in Neuroscience, 2018, 12, 126.	2.8	21

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37	FALCON: Feature Driven Selective Classification for Energy-Efficient Image Recognition. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2017, 36, 2017-2029.	2.7	15
38	Energy-Efficient Object Detection Using Semantic Decomposition. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2017, 25, 2673-2677.	3.1	5
39	RESPARC. , 2017, , .		60
40	Habituation based synaptic plasticity and organismic learning in a quantum perovskite. Nature Communications, 2017, 8, 240.	12.8	84
41	EnsembleSNN: Distributed assistive STDP learning for energy-efficient recognition in spiking neural networks. , 2017, , .		3
42	Gabor filter assisted energy efficient fast learning Convolutional Neural Networks. , 2017, , .		62
43	Learning to Generate Sequences with Combination of Hebbian and Non-hebbian Plasticity in Recurrent Spiking Neural Networks. Frontiers in Neuroscience, 2017, 11, 693.	2.8	30
44	An Energy-Efficient Mixed-Signal Neuron for Inherently Error-Resilient Neuromorphic Systems. , 2017, , .		3
45	Semantic driven hierarchical learning for energy-efficient image classification. , 2017, , .		1
46	Magnetic Tunnel Junction Mimics Stochastic Cortical Spiking Neurons. Scientific Reports, 2016, 6, 30039.	3.3	125
47	Unsupervised regenerative learning of hierarchical features in Spiking Deep Networks for object recognition. , 2016, , .		63
48	Conditional Deep Learning for Energy-Efficient and Enhanced Pattern Recognition. , 2016, , .		80
49	High-Density and Robust STT-MRAM Array Through Device/Circuit/Architecture Interactions. IEEE Nanotechnology Magazine, 2015, 14, 1024-1034.	2.0	25