Pavan Turaga

List of Publications by Year
in descending order

107 papers	3,646 citations	489802 18 h-index	371746 37 g-index
109 all docs	109 docs citations	109 times ranked	3534 citing authors

#	Article	IF	Citations
1	Role of Data Augmentation Strategies in Knowledge Distillation for Wearable Sensor Data. IEEE Internet of Things Journal, 2022, 9, 12848-12860.	5.5	6
2	Machine-Learning-based Algorithms for Automated Image Segmentation Techniques of Transmission X-ray Microscopy (TXM). Jom, 2021, 73, 2173-2184.	0.9	14
3	Automated Movement Assessment in Stroke Rehabilitation. Frontiers in Neurology, 2021, 12, 720650.	1.1	4
4	Recovering Trajectories of Unmarked Joints in 3D Human Actions Using Latent Space Optimization. , 2021, , .		4
5	Generative Patch Priors for Practical Compressive Image Recovery. , 2021, , .		2
6	Manifold Learning. , 2021, , 784-789.		0
7	Feature Selection. , 2021, , 463-467.		0
8	Invariant Methods in Computer Vision. , 2021, , 700-706.		0
9	Digital medicine and the curse of dimensionality. Npj Digital Medicine, 2021, 4, 153.	5.7	104
10	PI-Net: A Deep Learning Approach to Extract Topological Persistence Images. , 2020, 2020, 3639-3648.		13
11	AMC-Loss: Angular Margin Contrastive Loss for Improved Explainability in Image Classification. , 2020, , .		15
12	Machine Learning for Solar Array Monitoring, Optimization, and Control. Synthesis Lectures on Power Electronics, 2020, 7, 1-91.	1.7	18
13	Unsupervised Pre-trained Models from Healthy ADLs Improve Parkinsonâ€™s Disease Classification of Gait Patterns. , 2020, 2020, 784-788.		9
14	Manifold Learning. , 2020, , 1-6.		4
15	A Cyber-Physical Photovoltaic Array Monitoring and Control System. , 2020, , 786-807.		2
16	Geometric Metrics for Topological Representations. , 2020, , 415-441.		3
17	Feature Selection. , 2020, , 1-5.		1
18	Invariant Methods in Computer Vision. , 2020, , 1-7.		1

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19	A Cyber-Physical Photovoltaic Array Monitoring and Control System. , 2020, , 978-1000.		0
20	Multiple Subspace Alignment Improves Domain Adaptation. , 2019, , .		2
21	Reconstruction-Free Compressive Vision for Surveillance Applications. Synthesis Lectures on Signal Processing, 2019, 10, 1-100.	0.3	3
22	An Optical Flow-Based Approach for Minimally Divergent Velocimetry Data Interpolation. International Journal of Biomedical Imaging, 2019, 2019, 1-14.	3.0	2
23	Rank-Regularized Measurement Operators for Compressive Imaging. , 2019, , .		1
24	Formation-aware Cloud Segmentation of Ground-based Images with Applications to PV Systems. , 2019, , .		1
25	Adaptive Video Subsampling For Energy-Efficient Object Detection. , 2019, , .		8
26	An REU Experience in Machine Learning and Computational Cameras. , 2019, , .		1
27	Temporal Transformer Networks: Joint Learning of Invariant and Discriminative Time Warping. , 2019, , .		31
28	Spatially-Varying Sharpness Map Estimation Based on the Quotient of Spectral Bands. , 2019, , .		0
29	Representation, Analysis, and Recognition of 3D Humans. ACM Transactions on Multimedia Computing, Communications and Applications, 2018, 14, 1-36.	3.0	18
30	Optimization Problems Associated with Manifold-Valued Curves with Applications in Computer Vision. , 2018, , 207-228.		0
31	Temporal Alignment Improves Feature Quality: An Experiment on Activity Recognition with Accelerometer Data. , 2018, , .		7
32	Predicting Dynamical Evolution of Human Activities from a Single Image. , 2018, , .		3
33	Fast Non-Linear Methods for Dynamic Texture Prediction. , 2018, , .		7
34	CS-VQA: Visual Question Answering with Compressively Sensed Images. , 2018, , .		8
35	Shading prediction, fault detection, and consensus estimation for solar array control. , 2018, , .		19
36	Convolutional Neural Networks for Noniterative Reconstruction of Compressively Sensed Images. IEEE Transactions on Computational Imaging, 2018, 4, 326-340.	2.6	86

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37	Perturbation Robust Representations of Topological Persistence Diagrams. Lecture Notes in Computer Science, 2018, , 638-659.	1.0	10
38	Geometry of Deep Generative Models for Disentangled Representations. , 2018, , .		5
39	Elastic Functional Coding of Riemannian Trajectories. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 922-936.	9.7	41
40	Compressive Light Field Reconstructions Using Deep Learning. , 2017, , .		31
41	Measuring Glide-Reflection Symmetry in Human Movements Using Elastic Shape Analysis. , 2017, , .		0
42	Learning Invariant Riemannian Geometric Representations Using Deep Nets. , 2017, , .		3
43	Multiscale evolution of attractor-shape descriptors for assessing Parkinson's disease severity. , 2017, , .		3
44	A Cyber-Physical Photovoltaic Array Monitoring and Control System. International Journal of Monitoring and Surveillance Technologies Research, 2017, 5, 33-56.	0.3	11
45	ReconNet: Non-Iterative Reconstruction of Images from Compressively Sensed Measurements. , 2016, , .		416
46	Direct classification from compressively sensed images via deep Boltzmann machine. , 2016, , .		5
47	Riemannian geometric approaches for measuring movement quality. , 2016, , .		5
48	A Riemannian Framework for Statistical Analysis of Topological Persistence Diagrams. , 2016, , .		18
49	Diversity promoting online sampling for streaming video summarization. , 2016, , .		10
50	Motion, Captured. , 2016, , .		1
51	Enhanced Compressive Imaging Using Model-Based Acquisition: Smarter sampling by incorporating domain knowledge. IEEE Signal Processing Magazine, 2016, 33, 81-94.	4.6	13
52	Consensus inference on mobile phone sensors for activity recognition. , 2016, , .		6
53	Direct inference on compressive measurements using convolutional neural networks. , 2016, , .		66
54	Attractor-shape descriptors for balance impairment assessment in Parkinson's disease. , 2016, 2016, 3096-3100.		15

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55	A statistical estimation framework for energy expenditure of physical activities from a wrist-worn accelerometer. , 2016, 2016, 2631-2635.		11
56	Persistent homology of attractors for action recognition. , 2016, , .		29
57	Shape Distributions of Nonlinear Dynamical Systems for Video-Based Inference. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 2531-2543.	9.7	39
58	Component-Level Tuning of Kinematic Features From Composite Therapist Impressions of Movement Quality. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 143-152.	3.9	9
59	Reconstruction-Free Action Inference from Compressive Imagers. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 772-784.	9.7	62
60	Geometry-Based Symbolic Approximation for Fast Sequence Matching on Manifolds. International Journal of Computer Vision, 2016, 116, 161-173.	10.9	7
61	Towards realtime measurement of connectedness in human movement. , 2015, , .		3
62	Reconstruction-free inference on compressive measurements. , 2015, , .		27
63	Interdisciplinary Concepts for Design and Implementation of Mixed Reality Interactive Neurorehabilitation Systems for Stroke. Physical Therapy, 2015, 95, 449-460.	1.1	22
64	Geometric Compression of Orientation Signals for Fast Gesture Analysis. , 2015, , .		1
65	Discriminative feature learning from big data for visual recognition. Pattern Recognition, 2015, 48, 2961-2963.	5.1	4
66	Elastic functional coding of human actions: From vector-fields to latent variables. , 2015, , .		54
67	Dynamical Regularity for Action Analysis. , 2015, , .		20
68	A Generalized Lyapunov Feature for Dynamical Systems on Riemannian Manifolds. , 2015, , .		5
69	Direct tracking from compressive imagers: A proof of concept. , 2014, , .		6
70	SomaTech. , 2014, , .		12
71	Decision support for stroke rehabilitation therapy via describable attribute-based decision trees. , 2014, 2014, 3154-9.		7
72	Differential geometric representations and algorithms for some pattern recognition and computer vision problems. Pattern Recognition Letters, 2014, 43, 3-16.	2.6	4

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73	Interactively test driving an object detector: Estimating performance on unlabeled data. , 2014, , .		2
74	Image Understanding Using Sparse Representations. Synthesis Lectures on Image, Video, and Multimedia Processing, 2014, 7, 1-118.	0.9	13
75	Attractor-Shape for Dynamical Analysis of Human Movement: Applications in Stroke Rehabilitation and Action Recognition. , 2013, , .		14
76	A heterogeneous dictionary model for representation and recognition of human actions. , 2013, , .		1
77	Statistical Methods on Special Manifolds for Image and Video Understanding. Handbook of Statistics, 2013, 31, 178-201.	0.4	0
78	Recurrence textures for human activity recognition from compressive cameras. , 2012, , .		9
79	Age Estimation and Face Verification Across Aging Using Landmarks. IEEE Transactions on Information Forensics and Security, 2012, 7, 1780-1788.	4.5	72
80	On advances in differential-geometric approaches for 2D and 3D shape analyses and activity recognition. Image and Vision Computing, 2012, 30, 398-416.	2.7	29
81	A Blur-Robust Descriptor with Applications to Face Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 1220-1226.	9.7	70
82	Recent advances in age and height estimation from still images and video. , 2011, , .		5
83	Example-Driven Manifold Priors for Image Deconvolution. IEEE Transactions on Image Processing, 2011, 20, 3086-3096.	6.0	20
84	Towards view-invariant expression analysis using analytic shape manifolds. , 2011, , .		38
85	Diamond Sentry: Integrating Sensors and Cameras for Real-Time Monitoring of Indoor Spaces. IEEE Sensors Journal, 2011, 11, 593-602.	2.4	20
86	Statistical Computations on Grassmann and Stiefel Manifolds for Image and Video-Based Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 2273-2286.	9.7	295
87	Blurring-invariant Riemannian metrics for comparing signals and images. , 2011, , .		8
88	Face Tracking and Recognition in Video. , 2011, , 323-351.		19
89	Advances in Video-Based Biometrics. Advances in Computers, 2011, 83, 183-203.	1.2	0
90	Advances in Video-Based Human Activity Analysis. Advances in Computers, 2010, 80, 237-290.	1.2	26

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91	The role of geometry in age estimation. , 2010, , .		19
92	Nearest-neighbor search algorithms on non-Euclidean manifolds for computer vision applications. , 2010, , .		12
93	Video PrÃ©cis: Highlighting Diverse Aspects of Videos. IEEE Transactions on Multimedia, 2010, 12, 853-868.	5.2	90
94	Moving vistas: Exploiting motion for describing scenes. , 2010, , .		68
95	Statistical Analysis on Manifolds and Its Applications to Video Analysis. Studies in Computational Intelligence, 2010, , 115-144.	0.7	9
96	Object Dependent Manifold Priors for Image Deconvolution. , 2010, , .		1
97	Semantic Video Content Analysis. Studies in Computational Intelligence, 2010, , 147-176.	0.7	2
98	Locally time-invariant models of human activities using trajectories on the grassmannian. , 2009, , .		33
99	Modeling and Visualization of Human Activities for Multicamera Networks. Eurasip Journal on Image and Video Processing, 2009, 2009, 1-13.	1.7	10
100	Unsupervised view and rate invariant clustering of video sequences. Computer Vision and Image Understanding, 2009, 113, 353-371.	3.0	39
101	Video-Based Face Recognition Algorithms. Advances in Pattern Recognition, 2009, , 193-216.	0.8	4
102	Machine Recognition of Human Activities: A Survey. IEEE Transactions on Circuits and Systems for Video Technology, 2008, 18, 1473-1488.	5.6	1,045
103	A Constrained Probabilistic Petri Net Framework for Human Activity Detection in Video*. IEEE Transactions on Multimedia, 2008, 10, 1429-1443.	5.2	36
104	Statistical analysis on Stiefel and Grassmann manifolds with applications in computer vision. , 2008, , .		139
105	Learning action dictionaries from video. , 2008, , .		0
106	An ontology based approach for activity recognition from video. , 2008, , .		57
107	A Constrained Probabilistic Petri Net Framework for Human Activity Detection in Video. IEEE Transactions on Multimedia, 2008, 10, 982-996.	5.2	59