Nuno M Vasconcelos

List of Publications by Year
in descending order

144	16,288	126708	110170
papers	citations	33	64
		h-index	g-index

145	145	145	9852
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Advanced methods for robust object detection. , 2022, , 93-117.		0
2	Deep Hashing with Hash-Consistent Large Margin Proxy Embeddings. International Journal of Computer Vision, 2021, 129, 419-438.	10.9	5
3	Cascade R-CNN: High Quality Object Detection and Instance Segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 1483-1498.	9.7	637
4	IMAGINE: Image Synthesis by Image-Guided Model Inversion. , 2021, , .		5
5	Dynamic Transfer for Multi-Source Domain Adaptation. , 2021, , .		40
6	BEV-Net: Assessing Social Distancing Compliance by Joint People Localization and Geometric Reasoning. , 2021, , .		4
7	Learning of Visual Relations: The Devil is in the Tails. , 2021, , .		39
8	GistNet: a Geometric Structure Transfer Network for Long-Tailed Recognition. , 2021, , .		20
9	A Machine Teaching Framework for Scalable Recognition. , 2021, , .		4
10	Semantic Fisher Scores for Task Transfer: Using Objects to Classify Scenes. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 3102-3118.	9.7	10
11	Learning Complexity-Aware Cascades for Pedestrian Detection. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 42, 2195-2211.	9.7	23
12	Robust Deep Sensing Through Transfer Learning in Cognitive Radio. IEEE Wireless Communications Letters, 2020, 9, 38-41.	3.2	39
13	Super Diffusion for Salient Object Detection. IEEE Transactions on Image Processing, 2020, 29, 2903-2917.	6.0	10
14	Rethinking Differentiable Search for Mixed-Precision Neural Networks. , 2020, , .		52
15	Automated High-Frequency Observations of Physical Activity Using Computer Vision. Medicine and Science in Sports and Exercise, 2020, 52, 2029-2036.	0.2	7
16	Background Data Resampling for Outlier-Aware Classification. , 2020, , .		26
17	Few-Shot Open-Set Recognition Using Meta-Learning. , 2020, , .		47
18	SCOUT: Self-Aware Discriminant Counterfactual Explanations. , 2020, , .		37

#	Article	IF	Citations
19	Exploit Clues From Views: Self-Supervised and Regularized Learning for Multiview Object Recognition. , 2020, , .		4
20	Explainable Object-Induced Action Decision for Autonomous Vehicles. , 2020, , .		41
21	Solving Long-Tailed Recognition withÂDeep Realistic Taxonomic Classifier. Lecture Notes in Computer Science, 2020, , 171-189.	1.0	14
22	SPOT: Selective Point Cloud Voting for Better Proposal in Point Cloud Object Detection. Lecture Notes in Computer Science, 2020, , 230-247.	1.0	7
23	Cost-sensitive support vector machines. Neurocomputing, 2019, 343, 50-64.	3.5	124
24	NetTailor: Tuning the Architecture, Not Just the Weights. , 2019, , .		17
25	Efficient Multi-Domain Learning by Covariance Normalization. , 2019, , .		19
26	Bidirectional Learning for Domain Adaptation of Semantic Segmentation. , 2019, , .		391
27	Towards Universal Object Detection by Domain Attention. , 2019, , .		123
28	Catastrophic Child's Play: Easy to Perform, Hard to Defend Adversarial Attacks. , 2019, , .		3
29	REPAIR: Removing Representation Bias by Dataset Resampling. , 2019, , .		114
30	PIEs: Pose Invariant Embeddings. , 2019, , .		10
31	Volumetric Attention for 3D Medical Image Segmentation and Detection. Lecture Notes in Computer Science, 2019, , 175-184.	1.0	38
32	Feature Space Transfer for Data Augmentation. , 2018, , .		60
33	Cascade R-CNN: Delving Into High Quality Object Detection. , 2018, , .		3,013
34	RESOUND: Towards Action Recognition Without Representation Bias. Lecture Notes in Computer Science, 2018, , 520-535.	1.0	119
35	Towards Realistic Predictors. Lecture Notes in Computer Science, 2018, , 37-53.	1.0	15
36	ComplexÂActivityÂRecognition Via AttributeÂDynamics. International Journal of Computer Vision, 2017, 122, 334-370.	10.9	11

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37	Semantically Consistent Regularization for Zero-Shot Recognition. , 2017, , .		91
38	AGA: Attribute-Guided Augmentation. , 2017, , .		62
39	Deep Learning with Low Precision by Half-Wave Gaussian Quantization. , 2017, , .		264
40	Deep Scene Image Classification with the MFAFVNet. , 2017, , .		32
41	Automated Ecological Assessment of Physical Activity: Advancing Direct Observation. International Journal of Environmental Research and Public Health, 2017, 14, 1487.	1.2	12
42	Guest Editorial Special Section on Visual Saliency Computing and Learning. IEEE Transactions on Neural Networks and Learning Systems, 2016, 27, 1118-1121.	7.2	2
43	Pedestrian detection aided by temporal prior. , 2016, , .		0
44	VLAD3: Encoding Dynamics of Deep Features for Action Recognition. , 2016, , .		49
45	Person-following UAVs. , 2016, , .		8
46	A Unified Multi-scale Deep Convolutional Neural Network for Fast Object Detection. Lecture Notes in Computer Science, 2016, , 354-370.	1.0	790
47	Peak-Piloted Deep Network for Facial Expression Recognition. Lecture Notes in Computer Science, 2016, , 425-442.	1.0	167
48	Parametric Regression on the Grassmannian. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 2284-2297.	9.7	12
49	Boosted Convolutional Neural Networks. , 2016, , .		63
50	Semantic Clustering for Robust Fine-Grained Scene Recognition. Lecture Notes in Computer Science, 2016, , 783-798.	1.0	6
51	Generic Promotion of Diffusion-Based Salient Object Detection. , 2015, , .		40
52	FPGA implementation of HOG based pedestrian detector. , 2015, , .		4
53	Multiple instance learning for soft bags via top instances. , 2015, , .		41
54	Learning Complexity-Aware Cascades for Deep Pedestrian Detection. , 2015, , .		214

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55	How many bits does it take for a stimulus to be salient?. , 2015, , .		69
56	Bayesian Model Adaptation for Crowd Counts. , 2015, , .		43
57	Scene classification with semantic Fisher vectors. , 2015, , .		101
58	A real-time cascade pedestrian detection based on heterogeneous features. , 2015, , .		3
59	Object recognition with hierarchical discriminant saliency networks. Frontiers in Computational Neuroscience, 2014, 8, 109.	1.2	12
60	Learning Receptive Fields for Pooling from Tensors of Feature Response. , 2014, , .		5
61	Learning Optimal Seeds for Diffusion-Based Salient Object Detection. , 2014, , .		93
62	Robust Deformable and Occluded Object Tracking With Dynamic Graph. IEEE Transactions on Image Processing, 2014, 23, 5497-5509.	6.0	71
63	Anomaly Detection and Localization in Crowded Scenes. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 18-32.	9.7	589
64	On the Role of Correlation and Abstraction in Cross-Modal Multimedia Retrieval. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 521-535.	9.7	347
65	Cross-modal domain adaptation for text-based regularization of image semantics in image retrieval systems. Computer Vision and Image Understanding, 2014, 124, 123-135.	3.0	23
66	Using context to improve cascaded pedestrian detection. , 2014, , .		1
67	Geodesic Regression on the Grassmannian. Lecture Notes in Computer Science, 2014, , 632-646.	1.0	15
68	Latent Dirichlet Allocation Models for Image Classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2665-2679.	9.7	80
69	Class-Specific Simplex-Latent Dirichlet Allocation for Image Classification. , 2013, , .		2
70	Localizing target structures in ultrasound video â€" A phantom study. Medical Image Analysis, 2013, 17, 712-722.	7.0	31
71	Biologically Inspired Object Tracking Using Center-Surround Saliency Mechanisms. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 541-554.	9.7	115
72	Dynamic Pooling for Complex Event Recognition. , 2013, , .		34

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73	Recognizing Activities via Bag of Words for Attribute Dynamics. , 2013, , .		29
74	Surveillance of Crowded Environments: Modeling the Crowd by Its Global Properties. The Kluwer International Series in Video Computing, 2013, , 295-324.	0.7	0
75	Minimum Probability of Error Image Retrieval: From Visual Features to Image Semantics. Foundations and Trends in Signal Processing, 2012, 5, 265-389.	12.0	1
76	Boosting algorithms for simultaneous feature extraction and selection. , 2012, , .		8
77	On the regularization of image semantics by modal expansion. , 2012, , .		13
78	Learning Optimal Embedded Cascades. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 2005-2018.	9.7	21
79	Endoscopic image analysis in semantic space. Medical Image Analysis, 2012, 16, 1415-1422.	7.0	20
80	Counting People With Low-Level Features and Bayesian Regression. IEEE Transactions on Image Processing, 2012, 21, 2160-2177.	6.0	374
81	Holistic Context Models for Visual Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 902-917.	9.7	61
82	Recognition in Ultrasound Videos: Where Am I?. Lecture Notes in Computer Science, 2012, 15, 83-90.	1.0	1
83	Scene Recognition on the Semantic Manifold. Lecture Notes in Computer Science, 2012, , 359-372.	1.0	48
84	Biologically plausible detection of amorphous objects in the wild. , 2011, , .		3
85	Cost-Sensitive Boosting. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 294-309.	9.7	138
86	Generalized Staufferâ€"Grimson background subtraction for dynamic scenes. Machine Vision and Applications, 2011, 22, 751-766.	1.7	61
87	Adapted Gaussian models for image classification. , 2011, , .		39
88	TaylorBoost: First and second-order boosting algorithms with explicit margin control. , 2011, , .		21
89	Automatic initialization and tracking using attentional mechanisms. , 2011, , .		3
90	Learning Pit Pattern Concepts for Gastroenterological Training. Lecture Notes in Computer Science, 2011, 14, 280-287.	1.0	4

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91	Biologically plausible saliency mechanisms improve feedforward object recognition. Vision Research, 2010, 50, 2295-2307.	0.7	56
92	A new approach to cross-modal multimedia retrieval. , 2010, , .		912
93	Anomaly detection in crowded scenes. , 2010, , .		1,008
94	Spatiotemporal Saliency in Dynamic Scenes. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2010, 32, 171-177.	9.7	347
95	A Novel Approach to FRUC Using Discriminant Saliency and Frame Segmentation. IEEE Transactions on Image Processing, 2010, 19, 2924-2934.	6.0	48
96	On the design of robust classifiers for computer vision. , 2010, , .		40
97	Motion vector refinement for FRUC using saliency and segmentation. , 2010, , .		1
98	Variational layered dynamic textures. , 2009, , .		19
99	Saliency-based discriminant tracking. , 2009, , .		166
100	Decision-Theoretic Saliency: Computational Principles, Biological Plausibility, and Implications for Neurophysiology and Psychophysics. Neural Computation, 2009, 21, 239-271.	1.3	73
101	Fluoroscopic tumor tracking for image-guided lung cancer radiotherapy. Physics in Medicine and Biology, 2009, 54, 981-992.	1.6	108
102	Minimum Bayes error features for visual recognition. Image and Vision Computing, 2009, 27, 131-140.	2.7	2
103	Holistic context modeling using semantic co-occurrences. , 2009, , .		31
104	Bayesian Poisson regression for crowd counting. , 2009, , .		292
105	Natural Image Statistics and Low-Complexity Feature Selection. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, 31, 228-244.	9.7	37
106	Layered Dynamic Textures. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, 31, 1862-1879.	9.7	64
107	Discriminant Saliency, the Detection of Suspicious Coincidences, and Applications to Visual Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2009, 31, 989-1005.	9.7	248
108	Variational layered dynamic textures. , 2009, , .		3

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109	Saliency-based discriminant tracking. , 2009, , .		11
110	Holistic context modeling using semantic co-occurrences. , 2009, , .		1
111	Tumor Targeting for Lung Cancer Radiotherapy Using Machine Learning Techniques. , 2008, , .		2
112	Modeling, Clustering, and Segmenting Video with Mixtures of Dynamic Textures. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 909-926.	9.7	349
113	A study of query by semantic example. , 2008, , .		7
114	Object-Based Regions of Interest for Image Compression. Proceedings of the Data Compression Conference, 2008, , .	0.0	15
115	Background subtraction in highly dynamic scenes. , 2008, , .		76
116	A systematic study of the role of context on image classification. , 2008, , .		0
117	On the plausibility of the discriminant center-surround hypothesis for visual saliency. Journal of Vision, 2008, 8, 13.	0.1	239
118	Image retrieval using query by contextual example. , 2008, , .		4
119	Scene classification with low-dimensional semantic spaces and weak supervision. , 2008, , .		64
120	Complex discriminant features for object classification. , 2008, , .		1
121	Privacy preserving crowd monitoring: Counting people without people models or tracking. , 2008, , .		764
122	Bottom-up saliency is a discriminant process. , 2007, , .		173
123	High Detection-rate Cascades for Real-Time Object Detection. , 2007, , .		19
124	Direct convex relaxations of sparse SVM. , 2007, , .		45
125	Asymmetric boosting. , 2007, , .		54
126	Discriminant Interest Points are Stable. , 2007, , .		8

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127	Supervised Learning of Semantic Classes for Image Annotation and Retrieval. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 394-410.	9.7	731
128	Bridging the Gap: Query by Semantic Example. IEEE Transactions on Multimedia, 2007, 9, 923-938.	5.2	200
129	Classifying Video with Kernel Dynamic Textures. , 2007, , .		112
130	From Pixels to Semantic Spaces: Advances in Content-Based Image Retrieval. Computer, 2007, 40, 20-26.	1.2	53
131	An Experimental Comparison of Three Guiding Principles for the Detection of Salient Image Locations: Stability, Complexity, and Discrimination. Lecture Notes in Computer Science, 2007, , 184-197.	1.0	1
132	Image Compression using Object-Based Regions of Interest. , 2006, , .		15
133	Query by Semantic Example. Lecture Notes in Computer Science, 2006, , 51-60.	1.0	17
134	Some relationships between minimum Bayes error and information theoretical feature extraction. , 2005, , .		1
135	A database centric view of semantic image annotation and retrieval. , 2005, , .		42
136	A multiresolution manifold distance for invariant image similarity. IEEE Transactions on Multimedia, 2005, 7, 127-142.	5.2	39
137	On the Efficient Evaluation of Probabilistic Similarity Functions for Image Retrieval. IEEE Transactions on Information Theory, 2004, 50, 1482-1496.	1.5	70
138	Minimum Probability of Error Image Retrieval. IEEE Transactions on Signal Processing, 2004, 52, 2322-2336.	3.2	59
139	The Kullback-Leibler Kernel as a Framework for Discriminant and Localized Representations for Visual Recognition. Lecture Notes in Computer Science, 2004, , 430-441.	1.0	30
140	<title>Decision-theoretic image retrieval</title>. , 2002, 4862, 114.		0
141	What Is the Role of Independence for Visual Recognition?. Lecture Notes in Computer Science, 2002, , 297-311.	1.0	8
142	Empirical Bayesian motion segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2001, 23, 217-221.	9.7	37
143	Statistical models of video structure for content analysis and characterization. IEEE Transactions on Image Processing, 2000, 9, 3-19.	6.0	107
144	<title>Embedded mixture modeling for efficient probabilistic content-based indexing and retrieval</title>. , 1998, 3527, 134.		13