Gustavo Carneiro

List of Publications by Citations

137 papers	**3,788** citations	**29** h-index	**59** g-index
161 ext. papers	**4,870** ext. citations	**4.3** avg, IF	**6.18** L-index

#	Paper	IF	Citations
137	Supervised learning of semantic classes for image annotation and retrieval. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2007**, 29, 394-410	13.3	574
136	Unsupervised CNN for Single View Depth Estimation: Geometry to the Rescue. *Lecture Notes in Computer Science*, **2016**, 740-756	0.9	335
135	Combining deep learning and level set for the automated segmentation of the left ventricle of the heart from cardiac cine magnetic resonance. *Medical Image Analysis*, **2017**, 35, 159-171	15.4	202
134	A deep learning approach for the analysis of masses in mammograms with minimal user intervention. *Medical Image Analysis*, **2017**, 37, 114-128	15.4	175
133	The segmentation of the left ventricle of the heart from ultrasound data using deep learning architectures and derivative-based search methods. *IEEE Transactions on Image Processing*, **2012**, 21, 968-82	8.7	127
132	Detection and measurement of fetal anatomies from ultrasound images using a constrained probabilistic boosting tree. *IEEE Transactions on Medical Imaging*, **2008**, 27, 1342-55	11.7	125
131	An improved joint optimization of multiple level set functions for the segmentation of overlapping cervical cells. *IEEE Transactions on Image Processing*, **2015**, 24, 1261-72	8.7	111
130	Smart Mining for Deep Metric Learning **2017**,		102
129	Automated Mass Detection in Mammograms Using Cascaded Deep Learning and Random Forests **2015**,		97
128	Automated Analysis of Unregistered Multi-View Mammograms With Deep Learning. *IEEE Transactions on Medical Imaging*, **2017**, 36, 2355-2365	11.7	94
127	Robust Optimization for Deep Regression **2015**,		87
126	Precision Radiology: Predicting longevity using feature engineering and deep learning methods in a radiomics framework. *Scientific Reports*, **2017**, 7, 1648	4.9	86
125	Unregistered Multiview Mammogram Analysis with Pre-trained Deep Learning Models. *Lecture Notes in Computer Science*, **2015**, 652-660	0.9	84
124	Multi-modal Cycle-Consistent Generalized Zero-Shot Learning. *Lecture Notes in Computer Science*, **2018**, 21-37	0.9	84
123	Combining multiple dynamic models and deep learning architectures for tracking the left ventricle endocardium in ultrasound data. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2013**, 35, 2592-607	13.3	83
122	Hidden Stratification Causes Clinically Meaningful Failures in Machine Learning for Medical Imaging **2020**, 2020, 151-159		62
121	Evaluation of Three Algorithms for the Segmentation of Overlapping Cervical Cells. *IEEE Journal of Biomedical and Health Informatics*, **2017**, 21, 441-450	7.2	61

120	Deep Learning and Structured Prediction for the Segmentation of Mass in Mammograms. *Lecture Notes in Computer Science*, **2015**, 605-612	0.9	54
119	FlowMonitor - a network monitoring framework for the Network Simulator 3 (NS-3) **2009**,		48
118	The Automated Learning of Deep Features for Breast Mass Classification from Mammograms. *Lecture Notes in Computer Science*, **2016**, 106-114	0.9	47
117	Self-Supervised Monocular Trained Depth Estimation Using Self-Attention and Discrete Disparity Volume **2020**,		45
116	A discriminative model-constrained graph cuts approach to fully automated pediatric brain tumor segmentation in 3-D MRI. *Lecture Notes in Computer Science*, **2008**, 11, 67-75	0.9	42
115	Artistic Image Classification: An Analysis on the PRINTART Database. *Lecture Notes in Computer Science*, **2012**, 143-157	0.9	42
114	Automated nucleus and cytoplasm segmentation of overlapping cervical cells. *Lecture Notes in Computer Science*, **2013**, 16, 452-60	0.9	39
113	Flexible spatial configuration of local image features. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2007**, 29, 2089-104	13.3	37
112	Deep Reinforcement Learning for Active Breast Lesion Detection from DCE-MRI. *Lecture Notes in Computer Science*, **2017**, 665-673	0.9	37
111	A database centric view of semantic image annotation and retrieval **2005**,		32
110	Fully automated classification of mammograms using deep residual neural networks **2017**,		29
109	Deep structured learning for mass segmentation from mammograms **2015**,		29
108	Siam-U-Net: encoder-decoder siamese network for knee cartilage tracking in ultrasound images. *Medical Image Analysis*, **2020**, 60, 101631	15.4	27
107	Left ventricle segmentation from cardiac MRI combining level set methods with deep belief networks **2013**,		26
106	In Defence of RANSAC for Outlier Rejection in Deformable Registration. *Lecture Notes in Computer Science*, **2012**, 274-287	0.9	26
105	Phase-Based Local Features. *Lecture Notes in Computer Science*, **2002**, 282-296	0.9	26
104	Improving the performance of pedestrian detectors using convolutional learning. *Pattern Recognition*, **2017**, 61, 641-649	7.7	22
103	A deep convolutional neural network module that promotes competition of multiple-size filters. *Pattern Recognition*, **2017**, 71, 94-105	7.7	21

102	Probabilistic Object Detection: Definition and Evaluation **2020**,		21
101	**2019**,		21
100	Weakly-supervised Video Anomaly Detection with Robust Temporal Feature Magnitude Learning **2021**,		21
99	Robust left ventricle segmentation from ultrasound data using deep neural networks and efficient search methods **2010**,		18
98	Semantic-based indexing of fetal anatomies from 3-D ultrasound data using global/semi-local context and sequential sampling **2008**,		18
97	Computer-aided diagnosis for characterization of colorectal lesions: comprehensive software that includes differentiation of serrated lesions. *Gastrointestinal Endoscopy*, **2020**, 92, 891-899	5.2	17
96	Scaling CNNs for High Resolution Volumetric Reconstruction from a Single Image **2017**,		17
95	Review of Deep Learning Methods in Mammography, Cardiovascular, and Microscopy Image Analysis. *Advances in Computer Vision and Pattern Recognition*, **2017**, 11-32	1.1	17
94	Training Medical Image Analysis Systems like Radiologists. *Lecture Notes in Computer Science*, **2018**, 546-554		17
93	Sparse Flexible Models of Local Features. *Lecture Notes in Computer Science*, **2006**, 29-43	0.9	17
92	Deep learning uncertainty and confidence calibration for the five-class polyp classification from colonoscopy. *Medical Image Analysis*, **2020**, 62, 101653	15.4	15
91	**2017**,		15
90	Tree RE-weighted belief propagation using deep learning potentials for mass segmentation from mammograms **2015**,		15
89	Multiple dynamic models for tracking the left ventricle of the heart from ultrasound data using particle filters and deep learning architectures **2010**,		15
88	Fetal biometry: a comparison between experienced sonographers and automated measurements. *Journal of Maternal-Fetal and Neonatal Medicine*, **2009**, 22, 43-50	2	14
87	Deep Learning-Based Femoral Cartilage Automatic Segmentation in Ultrasound Imaging for Guidance in Robotic Knee Arthroscopy. *Ultrasound in Medicine and Biology*, **2020**, 46, 422-435	3.5	14
86	End-To-End Diagnosis And Segmentation Learning From Cardiac Magnetic Resonance Imaging **2019**,		13
85	On the importance of normalisation layers in deep learning with piecewise linear activation units **2016**,		13

84	Fully Automated Non-rigid Segmentation with Distance Regularized Level Set Evolution Initialized and Constrained by Deep-Structured Inference **2014**,		12
83	Fast prototyping of network protocols through ns-3 simulation model reuse. *Simulation Modelling Practice and Theory*, **2011**, 19, 2063-2075	3.9	12
82	Pre and post-hoc diagnosis and interpretation of malignancy from breast DCE-MRI. *Medical Image Analysis*, **2019**, 58, 101562	15.4	11
81	One-Stage Five-Class Polyp Detection and Classification **2019**,		11
80	Deep Learning Models for Classifying Mammogram Exams Containing Unregistered Multi-View Images and Segmentation Maps of Lesions **2017**, 321-339		11
79	Lung segmentation in chest radiographs using distance regularized level set and deep-structured learning and inference **2015**,		11
78	Learning Local Image Descriptors with Deep Siamese and Triplet Convolutional Networks by Minimizing Global Loss Functions **2016**,		11
77	Automatic Segmentation of Multiple Structures in Knee Arthroscopy Using Deep Learning. *IEEE Access*, **2020**, 8, 51853-51861	3.5	10
76	Automatic fetal measurements in ultrasound using constrained probabilistic boosting tree **2007**, 10, 571-9		10
75	Fast and robust 3-D MRI brain structure segmentation. *Lecture Notes in Computer Science*, **2009**, 12, 575-83		10
74	Producing Radiologist-Quality Reports for Interpretable Deep Learning. **2019**,		9
73	Deep Learning on Sparse Manifolds for Faster Object Segmentation. *IEEE Transactions on Image Processing*, **2017**, 26, 4978-4990	8.7	9
72	**2017**,		9
71	Artificial intelligence for pre-operative lymph node staging in colorectal cancer: a systematic review and meta-analysis. *BMC Cancer*, **2021**, 21, 1058	4.8	9
70	Graph-based methods for the automatic annotation and retrieval of art prints **2011**,		8
69	Few-Shot Anomaly Detection for Polyp Frames from Colonoscopy. *Lecture Notes in Computer Science*, **2020**, 274-284	0.9	8
68	Sensing in the presence of strong noise by deep learning of dynamic multimode fiber interference. *Photonics Research*, **2021**, 9, B109	6	8
67	The quantitative characterization of the distinctiveness and robustness of local image descriptors. *Image and Vision Computing*, **2009**, 27, 1143-1156	3.7	7

66	Bayesian Semantic Instance Segmentation in Open Set World. *Lecture Notes in Computer Science*, **2018**, 3-18	0.9	7
65	Region Proposals for Saliency Map Refinement for Weakly-Supervised Disease Localisation and Classification. *Lecture Notes in Computer Science*, **2020**, 539-549	0.9	7
64	Uncertainty in Model-Agnostic Meta-Learning using Variational Inference **2020**,		6
63	The use of on-line co-training to reduce the training set size in pattern recognition methods: Application to left ventricle segmentation in ultrasound **2012**,		6
62	Incremental on-line semi-supervised learning for segmenting the left ventricle of the heart from ultrasound data **2011**,		6
61	Automatic Quality Assessment of Transperineal Ultrasound Images of the Male Pelvic Region, Using Deep Learning. *Ultrasound in Medicine and Biology*, **2020**, 46, 445-454	3.5	6
60	Photoshopping Colonoscopy Video Frames **2020**,		6
59	Approximate Fisher Information Matrix to Characterize the Training of Deep Neural Networks. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2020**, 42, 15-26	13.3	6
58	One Shot Segmentation: Unifying Rigid Detection and Non-Rigid Segmentation Using Elastic Regularization. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2020**, 42, 3054-3070	13.3	6
57	LOW: Training deep neural networks by learning optimal sample weights. *Pattern Recognition*, **2021**, 110, 107585	7.7	6
56	Constrained Contrastive Distribution Learning for Unsupervised Anomaly Detection and Localisation in Medical Images. *Lecture Notes in Computer Science*, **2021**, 128-140	0.9	6
55	Non-rigid Segmentation Using Sparse Low Dimensional Manifolds and Deep Belief Networks **2014**,		5
54	A Survey on Deep Learning with Noisy Labels: How to train your model when you cannot trust on the annotations? **2020**,		5
53	Self-supervised Depth Estimation to Regularise Semantic Segmentation in Knee Arthroscopy. *Lecture Notes in Computer Science*, **2020**, 594-603	0.9	5
52	Artificial intelligence for the diagnosis of lymph node metastases in patients with abdominopelvic malignancy: A systematic review and meta-analysis. *Artificial Intelligence in Medicine*, **2021**, 113, 102022	7.4	5
51	Model Agnostic Saliency For Weakly Supervised Lesion Detection From Breast DCE-MRI **2019**,		4
50	Weakly-Supervised Structured Output Learning with Flexible and Latent Graphs Using High-Order Loss Functions **2015**,		4
49	The automatic design of feature spaces for local image descriptors using an ensemble of non-linear feature extractors **2010**,		4

48	Time and order estimation of paintings based on visual features and expert priors **2011**,		4
47	. *IEEE Access*, **2020**, 8, 223961-223975	3.5	4
46	Few-Shot Microscopy Image Cell Segmentation. *Lecture Notes in Computer Science*, **2021**, 139-154	0.9	4
45	What Is the Role of Independence for Visual Recognition?. *Lecture Notes in Computer Science*, **2002**, 297-311	3.1	4
44	Automatic Quantification of Tumour Hypoxia From Multi-Modal Microscopy Images Using Weakly-Supervised Learning Methods. *IEEE Transactions on Medical Imaging*, **2017**, 36, 1405-1417	11.7	3
43	Cardiovascular Diseases **2019**, 167-185		3
42	Artistic image analysis using graph-based learning approaches. *IEEE Transactions on Image Processing*, **2013**, 22, 3168-78	8.7	3
41	The use of deep learning features in a hierarchical classifier learned with the minimization of a non-greedy loss function that delays gratification **2015**,		3
40	Automatic detection of necrosis, normoxia and hypoxia in tumors from multimodal cytological images **2015**,		3
39	Top-Down Segmentation of Non-rigid Visual Objects Using Derivative-Based Search on Sparse Manifolds **2013**,		3
38	Convolutional Nets Versus Vision Transformers for Diabetic Foot Ulcer Classification. *Lecture Notes in Computer Science*, **2022**, 21-29	0.9	3
37	Fully Automated Segmentation Using Distance Regularised Level Set and Deep-Structured Learning and Inference. *Advances in Computer Vision and Pattern Recognition*, **2017**, 197-224	1.1	3
36	Combining Deep Learning and Structured Prediction for Segmenting Masses in Mammograms. *Advances in Computer Vision and Pattern Recognition*, **2017**, 225-240	1.1	3
35	Multi-channel Convolutional Neural Network Ensemble for Pedestrian Detection. *Lecture Notes in Computer Science*, **2017**, 122-130	0.9	3
34	Generalised Zero-Shot Learning with Domain Classification in a Joint Semantic and Visual Space **2019**,		3
33	Double Encoder-Decoder Networks for Gastrointestinal Polyp Segmentation. *Lecture Notes in Computer Science*, **2021**, 293-307	0.9	3
32	Self-supervised Mean Teacher for Semi-supervised Chest X-Ray Classification. *Lecture Notes in Computer Science*, **2021**, 426-436	0.9	3
31	Unsupervised Task Design to Meta-Train Medical Image Classifiers **2020**,		2

30	Deep Learning for US Image Quality Assessment Based on Femoral Cartilage Boundary Detection in Autonomous Knee Arthroscopy. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2020**, 67, 2543-2552	3.2	2
29	The Fusion of Deep Learning Architectures and Particle Filtering Applied to Lip Tracking **2010**,		2
28	WiMetroNet A Scalable Wireless Network for Metropolitan Transports **2010**,		2
27	Combining MBMS and IEEE 802.21 for on-the-road emergency **2008**,		2
26	CRISTAL: Adapting Workplace Training to the Real World Context with an Intelligent Simulator for Radiology Trainees. *Lecture Notes in Computer Science*, **2016**, 430-435	0.9	2
25	Multi-atlas segmentation using manifold learning with deep belief networks **2016**,		2
24	3D Semantic Mapping from Arthroscopy Using Out-of-Distribution Pose and Depth and In-Distribution Segmentation Training. *Lecture Notes in Computer Science*, **2021**, 383-393	0.9	2
23	Validation and algorithmic audit of a deep learning system for the detection of proximal femoral fractures in patients in the emergency department: a diagnostic accuracy study.. *The Lancet Digital Health*, **2022**,	14.4	2
22	Semi-Supervised Multi-Domain Multi-Task Training for Metastatic Colon Lymph Node Diagnosis from Abdominal CT **2020**,		1
21	Fuzzy clustering based encoding for Visual Object Classification **2013**,		1
20	3-D Modeling from Concept Sketches of Human Characters with Minimal User Interaction **2015**,		1
19	An ns-3 architecture for simulating joint radio resource management strategies in interconnected WLAN and UMTS networks. *Transactions on Emerging Telecommunications Technologies*, **2012**, 23, 537-549	1.9	1
18	Transparent and scalable terminal mobility for vehicular networks. *Computer Networks*, **2012**, 56, 577-597	5.4	1
17	Efficient search methods and deep belief networks with particle filtering for non-rigid tracking: Application to lip tracking **2010**,		1
16	Minimum Bayes error features for visual recognition. *Image and Vision Computing*, **2009**, 27, 131-140	3.7	1
15	QoS abstraction layer in 4G access networks. *Telecommunication Systems*, **2007**, 35, 55-65	2.3	1
14	Flexible and Latent Structured Output Learning. *Lecture Notes in Computer Science*, **2015**, 220-228	0.9	1
13	Saliency Improvement in Feature-Poor Surgical Environments Using Local Laplacian of Specified Histograms. *IEEE Access*, **2020**, 8, 213378-213388	3.5	1

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12	Visual Localisation for Knee Arthroscopy. *International Journal of Computer Assisted Radiology and Surgery*, **2021**, 16, 2137-2145	3.9	1
11	A Hierarchical Multi-task Approach to Gastrointestinal Image Analysis. *Lecture Notes in Computer Science*, **2021**, 275-282	0.9	1
10	Deep learning to diagnose pouch of Douglas obliteration with ultrasound sliding sign.. *Reproduction and Fertility*, **2021**, 2, 236-243	1.1	1
9	Deep Reinforcement Learning for Detecting Breast Lesions from DCE-MRI. *Advances in Computer Vision and Pattern Recognition*, **2019**, 163-178	1.1	0
8	SAFety, Effectiveness of care and Resource use among Australian Hospitals (SAFER Hospitals): a protocol for a population-wide cohort study of outcomes of hospital care. *BMJ Open*, **2020**, 10, e035446	3	0
7	Special Issue on Deep Learning for Robotic Vision. *International Journal of Computer Vision*, **2020**, 128, 1160-1161	10.6	
6	**2014**, 52, 158-165		
5	Artistic Image Analysis Using the Composition of Human Figures. *Lecture Notes in Computer Science*, **2015**, 117-132	0.9	
4	Arthroscope Localization in 3D Ultrasound Volumes Using Weakly Supervised Deep Learning. *Applied Sciences (Switzerland)*, **2021**, 11, 6828	2.6	
3	Identifying protein subcellular localisation in scientific literature using bidirectional deep recurrent neural network. *Scientific Reports*, **2021**, 11, 1696	4.9	
2	Self-Supervised Lesion Change Detection and Localisation in Longitudinal Multiple Sclerosis Brain Imaging. *Lecture Notes in Computer Science*, **2021**, 670-680	0.9	
1	Augmentation Network for Generalised Zero-Shot Learning. *Lecture Notes in Computer Science*, **2021**, 442-458	0.9	