

Silvio Savarese

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

6,709
citations

361413

20
h-index

552781

26
g-index

77
all docs

77
docs citations

77
times ranked

4273
citing authors

#	ARTICLE	IF	CITATIONS
1	Generalized Intersection Over Union: A Metric and a Loss for Bounding Box Regression. , 2019, , .		2,262
2	Gibson Env: Real-World Perception for Embodied Agents. , 2018, , .		317
3	Evaluation of image-based modeling and laser scanning accuracy for emerging automated performance monitoring techniques. Automation in Construction, 2011, 20, 1143-1155.	9.8	299
4	3D generic object categorization, localization and pose estimation. , 2007, , .		274
5	Automated Progress Monitoring Using Unordered Daily Construction Photographs and IFC-Based Building Information Models. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	235
6	Cross-view action recognition via view knowledge transfer. , 2011, , .		205
7	Learning context for collective activity recognition. , 2011, , .		174
8	Integrated Sequential As-Built and As-Planned Representation with D4AR Tools in Support of Decision-Making Tasks in the AEC/FM Industry. Journal of Construction Engineering and Management - ASCE, 2011, 137, 1099-1116.	3.8	156
9	Making Sense of Vision and Touch: Self-Supervised Learning of Multimodal Representations for Contact-Rich Tasks. , 2019, , .		152
10	Articulated part-based model for joint object detection and pose estimation. , 2011, , .		136
11	Automatic Extrinsic Calibration of Vision and Lidar by Maximizing Mutual Information. Journal of Field Robotics, 2015, 32, 696-722.	6.0	132
12	Understanding Indoor Scenes Using 3D Geometric Phrases. , 2013, , .		125
13	Semantic structure from motion. , 2011, , .		101
14	Making Sense of Vision and Touch: Learning Multimodal Representations for Contact-Rich Tasks. IEEE Transactions on Robotics, 2020, 36, 582-596.	10.3	90
15	Detecting and tracking people using an RGB-D camera via multiple detector fusion. , 2011, , .		89
16	Learning task-oriented grasping for tool manipulation from simulated self-supervision. International Journal of Robotics Research, 2020, 39, 202-216.	8.5	87
17	6-PACK: Category-level 6D Pose Tracker with Anchor-Based Keypoints. , 2020, , .		87
18	Interactive Gibson Benchmark: A Benchmark for Interactive Navigation in Cluttered Environments. IEEE Robotics and Automation Letters, 2020, 5, 713-720.	5.1	81

#	ARTICLE	IF	CITATIONS
19	Multi-Task Domain Adaptation for Deep Learning of Instance Grasping from Simulation. , 2018, , .		70
20	DeformNet: Free-Form Deformation Network for 3D Shape Reconstruction from a Single Image. , 2018, , .		68
21	Depth-Encoded Hough Voting for Joint Object Detection and Shape Recovery. Lecture Notes in Computer Science, 2010, , 658-671.	1.3	67
22	Local Shape from Mirror Reflections. International Journal of Computer Vision, 2005, 64, 31-67.	15.6	65
23	Watch-n-patch: Unsupervised understanding of actions and relations. , 2015, , .		64
24	Weakly Supervised 3D Reconstruction with Adversarial Constraint. , 2017, , .		64
25	Machine vision for natural gas methane emissions detection using an infrared camera. Applied Energy, 2020, 257, 113998.	10.1	62
26	Embodied intelligence via learning and evolution. Nature Communications, 2021, 12, 5721.	12.8	62
27	MEVBench: A mobile computer vision benchmarking suite. , 2011, , , .		60
28	Deformable part models revisited: A performance evaluation for object category pose estimation. , 2011, , , .		56
29	A Behavioral Approach to Visual Navigation with Graph Localization Networks. , 0, , , .		53
30	iGibson 1.0: A Simulation Environment for Interactive Tasks in Large Realistic Scenes. , 2021, , , .		52
31	Representations and Techniques for 3D Object Recognition and Scene Interpretation. Synthesis Lectures on Artificial Intelligence and Machine Learning, 2011, 5, 1-169.	0.8	51
32	3D Reconstruction by Shadow Carving: Theory and Practical Evaluation. International Journal of Computer Vision, 2007, 71, 305-336.	15.6	49
33	Deep Visual MPC-Policy Learning for Navigation. IEEE Robotics and Automation Letters, 2019, 4, 3184-3191.	5.1	49
34	GONet: A Semi-Supervised Deep Learning Approach For Traversability Estimation. , 2018, , , .		42
35	Deep Learning Under Privileged Information Using Heteroscedastic Dropout. , 2018, , , .		42
36	Neural Task Graphs: Generalizing to Unseen Tasks From a Single Video Demonstration. , 2019, , , .		42

#	ARTICLE	IF	CITATIONS
37	Learning a dense multi-view representation for detection, viewpoint classification and synthesis of object categories. , 2009, , .		41
38	Toward coherent object detection and scene layout understanding. , 2010, , .		41
39	Combining 3D Shape, Color, and Motion for Robust Anytime Tracking. , 0, , .		40
40	A multi-view probabilistic model for 3D object classes. , 2009, , .		36
41	Indoor Scene Understanding with Geometric and Semantic Contexts. International Journal of Computer Vision, 2015, 112, 204-220.	15.6	32
42	Long-term path prediction in urban scenarios using circular distributions. Image and Vision Computing, 2018, 69, 81-91.	4.5	31
43	Topological Planning with Transformers for Vision-and-Language Navigation. , 2021, , .		30
44	View Synthesis for Recognizing Unseen Poses of Object Classes. Lecture Notes in Computer Science, 2008, , 602-615.	1.3	27
45	ReLMoGen: Integrating Motion Generation in Reinforcement Learning for Mobile Manipulation. , 2021, , .		27
46	Robot Navigation in Constrained Pedestrian Environments using Reinforcement Learning. , 2021, , .		27
47	Local Analysis for 3D Reconstruction of Specular Surfaces – Part II. Lecture Notes in Computer Science, 2002, , 759-774.	1.3	26
48	Learning Task-Oriented Grasping for Tool Manipulation from Simulated Self-Supervision. , 0, , .		26
49	What do reflections tell us about the shape of a mirror?. , 2004, , .		25
50	Robust single-view instance recognition. , 2016, , .		25
51	Robust real-time tracking combining 3D shape, color, and motion. International Journal of Robotics Research, 2016, 35, 30-49.	8.5	25
52	Layout Estimation of Highly Cluttered Indoor Scenes Using Geometric and Semantic Cues. Lecture Notes in Computer Science, 2013, , 489-499.	1.3	22
53	Weakly Supervised Learning of Mid-Level Features with Beta-Bernoulli Process Restricted Boltzmann Machines. , 2013, , .		21
54	VUNet: Dynamic Scene View Synthesis for Traversability Estimation Using an RGB Camera. IEEE Robotics and Automation Letters, 2019, 4, 2062-2069.	5.1	21

#	ARTICLE	IF	CITATIONS
55	Find the Best Path: An Efficient and Accurate Classifier for Image Hierarchies. , 2013, , .		20
56	Deep Affordance Foresight: Planning Through What Can Be Done in the Future. , 2021, , .		19
57	VideoGasNet: Deep learning for natural gas methane leak classification using an infrared camera. Energy, 2022, 238, 121516.	8.8	18
58	Breaking the Chain: Liberation from the Temporal Markov Assumption for Tracking Human Poses. , 2013, , .		15
59	Continuous Relaxation of Symbolic Planner for One-Shot Imitation Learning. , 2019, , .		15
60	Mobile object detection through client-server based vote transfer. , 2012, , .		10
61	EVA: An efficient vision architecture for mobile systems. , 2013, , .		9
62	Watch-Bot: Unsupervised learning for reminding humans of forgotten actions. , 2016, , .		9
63	Recovering Local Shape of a Mirror Surface from Reflection of a Regular Grid. Lecture Notes in Computer Science, 2004, , 468-481.	1.3	9
64	Object detection, shape recovery, and 3D modelling by depth-encoded hough voting. Computer Vision and Image Understanding, 2013, 117, 1190-1202.	4.7	6
65	A Bayesian generative model for learning semantic hierarchies. Frontiers in Psychology, 2014, 5, 417.	2.1	6
66	Hierarchical Classification of Images by Sparse Approximation. , 2011, , .		6
67	Reflections on praxis and facture in a devotional portrait diptych: a computer analysis of the mirror in Hans Memling's Virgin and Child and Maarten van Nieuwenhove. Proceedings of SPIE, 2008, , .	0.8	5
68	Toward mutual information based place recognition. , 2014, , .		5
69	Toward Automatic 3D Generic Object Modeling from One Single Image. , 2011, , .		4
70	Probabilistic Visual Navigation with Bidirectional Image Prediction. , 2021, , .		4
71	A multi-view probabilistic model for 3D object classes. , 2009, , .		3
72	Generating Procedural 3D materials from Images using Neural Networks. , 2022, , .		2

#	ARTICLE	IF	CITATIONS
73	Time-Varying Interaction Estimation Using Ensemble Methods. , 2019, , .		1
74	Model-Based Object Recognition: Traditional Approach. , 2021, , 807-812.		0
75	Shape from Specularities. , 2021, , 1151-1154.		0
76	Shape from Specularities. , 2014, , 726-729.		0
77	Model-Based Object Recognition: Traditional Approach. , 2020, , 1-5.		0