

Niki Trigoni

List of Publications by Year in descending order

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Version: 2024-02-01

131
papers

6,150
citations

186209

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133
all docs

133
docs citations

133
times ranked

4520
citing authors

#	ARTICLE	IF	CITATIONS
1	RandLA-Net: Efficient Semantic Segmentation of Large-Scale Point Clouds. , 2020, , .		776
2	DeepVO: Towards end-to-end visual odometry with deep Recurrent Convolutional Neural Networks. , 2017, , .		482
3	Supporting Search and Rescue Operations with UAVs. , 2010, , .		303
4	Visual SLAM and Structure from Motion in Dynamic Environments. ACM Computing Surveys, 2019, 51, 1-36.	16.1	253
5	Non-Line-of-Sight Identification and Mitigation Using Received Signal Strength. IEEE Transactions on Wireless Communications, 2015, 14, 1689-1702.	6.1	211
6	VidLoc: A Deep Spatio-Temporal Model for 6-DoF Video-Clip Relocalization. , 2017, , .		145
7	mID: Tracking and Identifying People with Millimeter Wave Radar. , 2019, , .		145
8	End-to-end, sequence-to-sequence probabilistic visual odometry through deep neural networks. International Journal of Robotics Research, 2018, 37, 513-542.	5.8	139
9	Delay-bounded routing in vehicular ad-hoc networks. , 2008, , .		122
10	3D Object Reconstruction from a Single Depth View with Adversarial Learning. , 2017, , .		122
11	Evolution and sustainability of a wildlife monitoring sensor network. , 2010, , .		109
12	Multi-query Optimization for Sensor Networks. Lecture Notes in Computer Science, 2005, , 307-321.	1.0	104
13	The Cougar Project. SIGMOD Record, 2003, 32, 53-59.	0.7	92
14	GANVO: Unsupervised Deep Monocular Visual Odometry and Depth Estimation with Generative Adversarial Networks. , 2019, , .		89
15	Anomaly Detection for Time Series Using VAE-LSTM Hybrid Model. , 2020, , .		87
16	Lightweight map matching for indoor localisation using conditional random fields. , 2014, , .		85
17	Selective Sensor Fusion for Neural Visual-Inertial Odometry. , 2019, , .		80
18	See through smoke. , 2020, , .		76

#	ARTICLE	IF	CITATIONS
19	Coordinated Search with a Swarm of UAVs. , 2009, , .		75
20	Deep-Learning-Based Pedestrian Inertial Navigation: Methods, Data Set, and On-Device Inference. IEEE Internet of Things Journal, 2020, 7, 4431-4441.	5.5	75
21	Towards Semantic Segmentation of Urban-Scale 3D Point Clouds: A Dataset, Benchmarks and Challenges. , 2021, , .		75
22	Neighbor-Aided Localization in Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 2693-2702.	4.7	74
23	AtLoc: Attention Guided Camera Localization. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 10393-10401.	3.6	73
24	Dense 3D Object Reconstruction from a Single Depth View. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 2820-2834.	9.7	72
25	Gaussian Process Regression for Fingerprinting based Localization. Ad Hoc Networks, 2016, 51, 1-10.	3.4	70
26	Underground Localization in 3-D Using Magneto-Inductive Tracking. IEEE Sensors Journal, 2012, 12, 1809-1816.	2.4	69
27	Robust Attentional Aggregation of Deep Feature Sets for Multi-view 3D Reconstruction. International Journal of Computer Vision, 2020, 128, 53-73.	10.9	68
28	WILDSENSING. ACM Transactions on Sensor Networks, 2012, 8, 1-33.	2.3	68
29	Magneto-inductive networked rescue system (MINERS). , 2012, , .		59
30	Distilling Knowledge From a Deep Pose Regressor Network. , 2019, , .		58
31	Efficient Data Propagation in Traffic-Monitoring Vehicular Networks. IEEE Transactions on Intelligent Transportation Systems, 2011, 12, 680-694.	4.7	56
32	Revealing the hidden lives of underground animals using magneto-inductive tracking. , 2010, , .		53
33	Zero-Velocity Detectionâ€”A Bayesian Approach to Adaptive Thresholding. , 2019, 3, 1-4.		53
34	milliEgo. , 2020, , .		53
35	Milli-RIO: Ego-Motion Estimation With Low-Cost Millimetre-Wave Radar. IEEE Sensors Journal, 2021, 21, 3314-3323.	2.4	52
36	Distortion Rejecting Magneto-Inductive Three-Dimensional Localization (MagLoc). IEEE Journal on Selected Areas in Communications, 2015, 33, 2404-2417.	9.7	51

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37	Impact of Rocks and Minerals on Underground Magneto-Inductive Communication and Localization. IEEE Access, 2016, 4, 3999-4010.	2.6	49
38	Robust pedestrian dead reckoning (R-PDR) for arbitrary mobile device placement. , 2014, , .		47
39	Learning with Training Wheels: Speeding up Training with a Simple Controller for Deep Reinforcement Learning. , 2018, , .		47
40	Climate and the Individual: Inter-Annual Variation in the Autumnal Activity of the European Badger (Meles meles). PLoS ONE, 2014, 9, e83156.	1.1	43
41	Deep Neural Network Based Inertial Odometry Using Low-Cost Inertial Measurement Units. IEEE Transactions on Mobile Computing, 2021, 20, 1351-1364.	3.9	42
42	WaveScheduling. , 2004, , .		40
43	Robust Indoor Positioning With Lifelong Learning. IEEE Journal on Selected Areas in Communications, 2015, 33, 2287-2301.	9.7	40
44	Indoor Tracking Using Undirected Graphical Models. IEEE Transactions on Mobile Computing, 2015, 14, 2286-2301.	3.9	39
45	Keyframe based large-scale indoor localisation using geomagnetic field and motion pattern. , 2016, , .		38
46	Probabilistic target detection by camera-equipped UAVs. , 2010, , .		37
47	Underground Incrementally Deployed Magneto-Inductive 3-D Positioning Network. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 4376-4391.	2.7	37
48	Multiple-Model Fully Convolutional Neural Networks for Single Object Tracking on Thermal Infrared Video. IEEE Access, 2018, 6, 42790-42799.	2.6	37
49	DeepTIO: A Deep Thermal-Inertial Odometry With Visual Hallucination. IEEE Robotics and Automation Letters, 2020, 5, 1672-1679.	3.3	37
50	SelfVIO: Self-supervised deep monocular Visualâ€™Inertial Odometry and depth estimation. Neural Networks, 2022, 150, 119-136.	3.3	36
51	DeepPCO: End-to-End Point Cloud Odometry through Deep Parallel Neural Network. , 2019, , .		34
52	SensatUrban: Learning Semantics from Urban-Scale Photogrammetric Point Clouds. International Journal of Computer Vision, 2022, 130, 316-343.	10.9	34
53	MotionTransformer: Transferring Neural Inertial Tracking between Domains. Proceedings of the AAAI Conference on Artificial Intelligence, 2019, 33, 8009-8016.	3.6	32
54	Brick& Mortar: an on-line multi-agent exploration algorithm. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	31

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55	Learning Monocular Visual Odometry through Geometry-Aware Curriculum Learning. , 2019, , .		31
56	Heart Rate Sensing with a Robot Mounted mmWave Radar. , 2020, , .		30
57	A new Magnetoâ€nductive tracking technique to uncover subterranean activity: what do animals do underground?. Methods in Ecology and Evolution, 2015, 6, 510-520.	2.2	27
58	Encounter based sensor tracking. , 2012, , .		26
59	Fusion of Radio and Camera Sensor Data for Accurate Indoor Positioning. , 2014, , .		26
60	Robust occupancy inference with commodity WiFi. , 2016, , .		26
61	Rapid exploration of unknown areas through dynamic deployment of mobile and stationary sensor nodes. Autonomous Agents and Multi-Agent Systems, 2009, 19, 210-243.	1.3	25
62	TIME: An Open Platform for Capturing, Processing and Delivering Transport-Related Data. , 2008, , .		23
63	Simultaneous Localization and Mapping with Power Network Electromagnetic Field. , 2018, , .		23
64	Learning With Stochastic Guidance for Robot Navigation. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 166-176.	7.2	23
65	Robot-assisted discovery of evacuation routes in emergency scenarios. , 2008, , .		22
66	Probabilistic search with agile UAVs. , 2010, , .		22
67	Identification and mitigation of non-line-of-sight conditions using received signal strength. , 2013, , .		22
68	An activeâ€radioâ€frequencyâ€identification system capable of identifying coâ€locations and socialâ€structure: Validation with a wild freeâ€ranging animal. Methods in Ecology and Evolution, 2017, 8, 1822-1831.	2.2	22
69	Wave scheduling and routing in sensor networks. ACM Transactions on Sensor Networks, 2007, 3, 2.	2.3	21
70	Accurate Positioning via Cross-Modality Training. , 2015, , .		21
71	Discrete Gene Regulatory Networks (dGRNs); A Novel Approach to Configuring Sensor Networks. , 2010, , .		19
72	Sensor network algorithms and applications. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 5-10.	1.6	19

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73	Tracking People in Highly Dynamic Industrial Environments. IEEE Transactions on Mobile Computing, 2017, 16, 2351-2365.	3.9	19
74	Snoopy. , 2018, 1, 1-29.		19
75	DynaNet: Neural Kalman Dynamical Model for Motion Estimation and Prediction. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 5479-5491.	7.2	19
76	P2-Net: Joint Description and Detection of Local Features for Pixel and Point Matching. , 2021, , .		19
77	PointLoc: Deep Pose Regressor for LiDAR Point Cloud Localization. IEEE Sensors Journal, 2022, 22, 959-968.	2.4	18
78	Robust localization in cluttered environments with NLOS propagation. , 2010, , .		17
79	Correlation-based data dissemination in traffic monitoring sensor networks. , 2006, , .		16
80	Performance evaluation of IEEE 802.15.4 with real time queueing analysis. Ad Hoc Networks, 2018, 73, 80-94.	3.4	16
81	Graph-Based Thermalâ€™Inertial SLAM With Probabilistic Neural Networks. IEEE Transactions on Robotics, 2022, 38, 1875-1893.	7.3	16
82	Accuracy Estimation for Sensor Systems. IEEE Transactions on Mobile Computing, 2015, 14, 1330-1343.	3.9	15
83	TwinRoute: Energy-Efficient Data Collection in Fixed Sensor Networks with Mobile Sinks. , 2009, , .		14
84	Magneto-Inductive NEtworked Rescue System (MINERS): Taking sensor networks underground. , 2012, , .		14
85	SCAN. , 2017, , .		13
86	RadarLoc: Learning to Relocalize in FMCW Radar. , 2021, , .		13
87	Distributed localization in cluttered underwater environments. , 2010, , .		12
88	VeriNet. , 2017, , .		12
89	Deepauth. , 2018, , .		12
90	DeepAoANet: Learning Angle of Arrival From Software Defined Radios With Deep Neural Networks. IEEE Access, 2022, 10, 3164-3176.	2.6	12

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91	Routing and processing multiple aggregate queries in sensor networks. , 2006, , .		10
92	FootSLAM meets Adaptive Thresholding. IEEE Sensors Journal, 2020, , 1-1.	2.4	10
93	A Study of Approximate Data Management Techniques for Sensor Networks. , 2006, , .		9
94	Distributed constraint optimisation for resource limited sensor networks. Science of Computer Programming, 2013, 78, 583-593.	1.5	9
95	Robust vision-based indoor localization. , 2015, , .		8
96	GraphTinker: Outlier rejection and inlier injection for pose graph SLAM. , 2017, , .		8
97	3D-PhysNet: Learning the Intuitive Physics of Non-Rigid Object Deformations. , 2018, , .		8
98	3D Motion Capture of an Unmodified Drone with Single-chip Millimeter Wave Radar. , 2021, , .		8
99	Increasing the efficiency of 6-DoF visual localization using multi-modal sensory data. , 2016, , .		7
100	Autonomous Learning for Face Recognition in the Wild via Ambient Wireless Cues. , 2019, , .		7
101	SnapNav: Learning Mapless Visual Navigation with Sparse Directional Guidance and Visual Reference. , 2020, , .		7
102	Learning Selective Sensor Fusion for State Estimation. IEEE Transactions on Neural Networks and Learning Systems, 2024, , 1-15.	7.2	7
103	Efficient Indoor Positioning with Visual Experiences via Lifelong Learning. IEEE Transactions on Mobile Computing, 2019, 18, 814-829.	3.9	6
104	Autonomous Learning of Speaker Identity and WiFi Geofence From Noisy Sensor Data. IEEE Internet of Things Journal, 2019, 6, 8284-8295.	5.5	6
105	Characterization of non-line-of-sight (NLOS) bias via analysis of clutter topology. , 2012, , .		5
106	Comparison of Accuracy Estimation Approaches for Sensor Networks. , 2013, , .		5
107	iMag: Accurate and Rapidly Deployable Inertial Magneto-Inductive Localisation. , 2018, , .		5
108	DEFO-NET: Learning Body Deformation Using Generative Adversarial Networks. , 2018, , .		5

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109	Semantic Place Understanding for Human-Robot Coexistence-Toward Intelligent Workplaces. IEEE Transactions on Human-Machine Systems, 2019, 49, 160-170.	2.5	5
110	Learning 3D Scene Semantics and Structure from a Single Depth Image. , 2018, , .		4
111	Map-aided Navigation for Emergency Searches. , 2019, , .		4
112	Deep Odometry Systems on Edge with EKF-LoRa Backend for Real-Time Indoor Positioning. , 2022, , .		4
113	Jointly optimizing data acquisition and delivery in traffic monitoring VANETs. , 2009, , .		3
114	Leveraging User Activities and Mobile Robots for Semantic Mapping and User Localization. , 2017, , .		3
115	CommonSense. , 2018, , .		3
116	Sensor Fusion for Magneto-Inductive Navigation. IEEE Sensors Journal, 2020, 20, 386-396.	2.4	3
117	Multiscale Human Activity Recognition and Anticipation Network. IEEE Transactions on Neural Networks and Learning Systems, 2024, 35, 451-465.	7.2	3
118	Opportunistic Radio Assisted Navigation for Autonomous Ground Vehicles. , 2015, , .		2
119	Towards Self-supervised Face Labeling via Cross-modality Association. , 2017, , .		2
120	Graph-theoretic approach for UAV-aided network connectivity. , 2018, , .		2
121	iMag+: An Accurate and Rapidly Deployable Inertial Magneto-Inductive SLAM System. IEEE Transactions on Mobile Computing, 2022, 21, 3644-3655.	3.9	2
122	Directions in Multi-Query Optimization for Sensor Networks. , 2005, , 179-196.		1
123	HybridExploration: A distributed approach to terrain exploration using mobile and fixed sensor nodes. , 2008, , .		1
124	Dynamic node placement for multi-hop localization in cluttered environments. , 2011, , .		1
125	Adaptive node placement for improving localization accuracy in clutter-prone environments. , 2013, , .		1
126	Advances and Challenges in Underground Sensing. , 2018, , 357-415.		1

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127	Indoor positioning system in visually-degraded environments with millimetre-wave radar and inertial sensors. , 2020, , .		1
128	Magneto-inductive tracking of underground animals. , 2010, , .		0
129	Effect of clutter topology on multi-hop localizer placement. , 2014, , .		0
130	Poster Abstract: Efficient Visual Positioning with Adaptive Parameter Learning. , 2016, , .		0
131	Automatic Face Recognition Adaptation via Ambient Wireless Identifiers. , 2018, , .		0