

# Chaofan Yang

## List of Publications by Year in descending order

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154  
papers

8,986  
citations

109321

35  
h-index

82547

72  
g-index

163  
all docs

163  
docs citations

163  
times ranked

5651  
citing authors

#	ARTICLE	IF	CITATIONS
1	SymListener: Detecting Respiratory Symptoms via Acoustic Sensing in Driving Environments. ACM Transactions on Sensor Networks, 2023, 19, 1-21.	3.6	2
2	GaitSense: Towards Ubiquitous Gait-Based Human Identification with Wi-Fi. ACM Transactions on Sensor Networks, 2022, 18, 1-24.	3.6	15
3	Wireless Localization with Spatial-Temporal Robust Fingerprints. ACM Transactions on Sensor Networks, 2022, 18, 1-23.	3.6	7
4	ChromaCode: A Fully Imperceptible Screen-Camera Communication System. IEEE Transactions on Mobile Computing, 2021, 20, 861-876.	5.8	15
5	Collective Memory for Detecting Nonconcurrent Clones: A Localized Approach for Global Topology and Identity Tracing in IoT Networks. IEEE Internet of Things Journal, 2021, 8, 5762-5777.	8.7	0
6	Train Once, Locate Anytime for Anyone: Adversarial Learning based Wireless Localization. , 2021, , .		27
7	Smartphone-Based Indoor Visual Navigation with Leader-Follower Mode. ACM Transactions on Sensor Networks, 2021, 17, 1-22.	3.6	9
8	FollowUpAR. , 2021, , .		13
9	Enabling Surveillance Cameras to Navigate. ACM Transactions on Sensor Networks, 2021, 17, 1-20.	3.6	2
10	XGest: Enabling Cross-Label Gesture Recognition with RF Signals. ACM Transactions on Sensor Networks, 2021, 17, 1-23.	3.6	11
11	Crowdsensing 2.0. Communications of the ACM, 2021, 64, 76-80.	4.5	37
12	Decimeter-Level Passive Human Tracking with Multiple Wi-Fi Links. , 2021, , 101-123.		0
13	Passive Detection of Moving and Stationary Human with Wi-Fi. , 2021, , 67-97.		0
14	Passive Human Detection with Wi-Fi. , 2021, , 25-45.		0
15	Decimeter-Level Passive Human Tracking with a Single Wi-Fi Link. , 2021, , 125-154.		1
16	Understanding of Channel State Information. , 2021, , 11-21.		0
17	Wireless Sensing Overview. , 2021, , 3-9.		0
18	Inferring Motion Direction with Wi-Fi. , 2021, , 157-182.		0

#	ARTICLE	IF	CITATIONS
19	Research Summary and Future Directions. , 2021, , 233-234.		0
20	Human Gesture Recognition with Wi-Fi. , 2021, , 183-214.		0
21	Improving Urban Crowd Flow Prediction on Flexible Region Partition. IEEE Transactions on Mobile Computing, 2020, 19, 2804-2817.	5.8	16
22	Passenger Demand Prediction with Cellular Footprints. IEEE Transactions on Mobile Computing, 2020, , 1-1.	5.8	7
23	Enabling Surveillance Cameras to Navigate. , 2020, , .		5
24	Edge Assisted Mobile Semantic Visual SLAM. , 2020, , .		46
25	DeepKey. ACM Transactions on Intelligent Systems and Technology, 2020, 11, 1-24.	4.5	23
26	Improving the Applicability of Visual Peer-to-Peer Navigation with Crowdsourcing. , 2020, , .		1
27	GaitID: Robust Wi-Fi Based Gait Recognition. Lecture Notes in Computer Science, 2020, , 730-742.	1.3	15
28	Urban Scale Trade Area Characterization for Commercial Districts with Cellular Footprints. ACM Transactions on Sensor Networks, 2020, 16, 1-20.	3.6	7
29	airFinger: Micro Finger Gesture Recognition via NIR Light Sensing for Smart Devices. , 2020, , .		3
30	Zero-Effort Cross-Domain Gesture Recognition with Wi-Fi. , 2019, , .		271
31	CellTrans. , 2019, 3, 1-26.		9
32	iVR. , 2019, 3, 1-22.		27
33	CellTradeMap: Delineating Trade Areas for Urban Commercial Districts with Cellular Networks. , 2019, , .		8
34	Pair-Navi: Peer-to-Peer Indoor Navigation with Mobile Visual SLAM. , 2019, , .		18
35	WiSH: WiFi-based real-time human detection. Tsinghua Science and Technology, 2019, 24, 615-629.	6.1	12
36	A Survey on Bluetooth 5.0 and Mesh. ACM Transactions on Sensor Networks, 2019, 15, 1-29.	3.6	48

#	ARTICLE	IF	CITATIONS
37	Passenger Demand Forecasting with Multi-Task Convolutional Recurrent Neural Networks. Lecture Notes in Computer Science, 2019, , 29-42.	1.3	40
38	Spatio-Temporal Analysis and Prediction of Cellular Traffic in Metropolis. IEEE Transactions on Mobile Computing, 2019, 18, 2190-2202.	5.8	95
39	On Reliable Task Assignment for Spatial Crowdsourcing. IEEE Transactions on Emerging Topics in Computing, 2019, 7, 174-186.	4.6	62
40	Vehicle-Based Bi-Objective Crowdsourcing. IEEE Transactions on Intelligent Transportation Systems, 2018, 19, 3420-3428.	8.0	34
41	Enabling Phased Array Signal Processing for Mobile WiFi Devices. IEEE Transactions on Mobile Computing, 2018, 17, 1820-1833.	5.8	27
42	Enabling Contactless Detection of Moving Humans with Dynamic Speeds Using CSI. Transactions on Embedded Computing Systems, 2018, 17, 1-18.	2.9	65
43	Automatic Radio Map Adaptation for Indoor Localization Using Smartphones. IEEE Transactions on Mobile Computing, 2018, 17, 517-528.	5.8	119
44	Embracing Spatial Awareness for Reliable WiFi-Based Indoor Location Systems. , 2018, , .		19
45	Temporal understanding of human mobility: A multi-time scale analysis. PLoS ONE, 2018, 13, e0207697.	2.5	11
46	Combating Cross-Technology Interference for Robust Wireless Sensing with COTS WiFi. , 2018, , .		4
47	Widar2.0. , 2018, , .		252
48	Acousticcardiogram: Monitoring Heartbeats using Acoustic Signals on Smart Devices. , 2018, , .		65
49	Background and Overview. , 2018, , 3-16.		0
50	Wireless Indoor Localization. , 2018, , .		2
51	Enhancing WiFi Fingerprinting with Visual Clues. , 2018, , 165-191.		0
52	Adaptive Radio Map Updating. , 2018, , 83-107.		0
53	Passenger Demand Prediction with Cellular Footprints. , 2018, , .		9
54	Fuzzy Integral Optimization with Deep Q-Network for EEG-Based Intention Recognition. Lecture Notes in Computer Science, 2018, , 156-168.	1.3	7

#	ARTICLE	IF	CITATIONS
55	Radio Map Construction Without Site Survey. , 2018, , 33-57.		0
56	ChromaCode. , 2018, , .		13
57	Mobile Crowdsourcing and Inertial Sensing. , 2018, , 17-30.		0
58	Mitigating Large Errors in Practice. , 2018, , 193-215.		0
59	Exploiting Spatial Awareness via Fingerprint Spatial Gradient. , 2018, , 139-163.		0
60	Toward Efficient Mechanisms for Mobile Crowdsensing. IEEE Transactions on Vehicular Technology, 2017, 66, 1760-1771.	6.3	47
61	Peer-to-Peer Indoor Navigation Using Smartphones. IEEE Journal on Selected Areas in Communications, 2017, 35, 1141-1153.	14.0	78
62	A Platform for Free-Weight Exercise Monitoring with Passive Tags. IEEE Transactions on Mobile Computing, 2017, 16, 3279-3293.	5.8	57
63	Wi-Dog: Monitoring School Violence with Commodity WiFi Devices. Lecture Notes in Computer Science, 2017, , 47-59.	1.3	6
64	Widar. , 2017, , .		201
65	Detecting radio frequency interference for CSI measurements on COTS WiFi devices. , 2017, , .		12
66	Inferring Motion Direction using Commodity Wi-Fi for Interactive Exergames. , 2017, , .		165
67	Gain Without Pain. , 2017, 1, 1-19.		72
68	SpatialRecruiter: Maximizing Sensing Coverage in Selecting Workers for Spatial Crowdsourcing. IEEE Transactions on Vehicular Technology, 2017, 66, 5229-5240.	6.3	40
69	STPP: Spatial-Temporal Phase Profiling-Based Method for Relative RFID Tag Localization. IEEE/ACM Transactions on Networking, 2017, 25, 596-609.	3.8	121
70	Mitigating Large Errors in WiFi-Based Indoor Localization for Smartphones. IEEE Transactions on Vehicular Technology, 2017, 66, 6246-6257.	6.3	48
71	Spatio-temporal analysis and prediction of cellular traffic in metropolis. , 2017, , .		26
72	Triangle Extension: Efficient Localizability Detection in Wireless Sensor Networks. IEEE Transactions on Wireless Communications, 2017, 16, 7419-7431.	9.2	15

#	ARTICLE	IF	CITATIONS
73	TUM: Towards ubiquitous multi-device localization for cross-device interaction. , 2017, , .		6
74	WiSH: The Design and Implementation of a Real-Time System for Whole-Day Human Detection. , 2017, , .		0
75	ppNav: Peer-to-Peer Indoor Navigation for Smartphones. , 2016, , .		6
76	Indoor localization via multi-modal sensing on smartphones. , 2016, , .		52
77	Tuning by turning: Enabling phased array signal processing for WiFi with inertial sensors. , 2016, , .		12
78	Enhancing Industrial Video Surveillance over Wireless Mesh Networks. , 2016, , .		4
79	An adaptive wireless passive human detection via fine-grained physical layer information. Ad Hoc Networks, 2016, 38, 38-50.	5.5	48
80	Sleep Hunter: Towards Fine Grained Sleep Stage Tracking with Smartphones. IEEE Transactions on Mobile Computing, 2016, 15, 1514-1527.	5.8	58
81	Spatial Reusability-Aware Routing in Multi-Hop Wireless Networks. IEEE Transactions on Computers, 2016, 65, 244-255.	3.4	154
82	Incentives for Mobile Crowd Sensing: A Survey. IEEE Communications Surveys and Tutorials, 2016, 18, 54-67.	39.4	416
83	Enhancing wifi-based localization with visual clues. , 2015, , .		63
84	PhaseU: Real-time LOS identification with WiFi. , 2015, , .		127
85	Static power of mobile devices: Self-updating radio maps for wireless indoor localization. , 2015, , .		59
86	FEMO. , 2015, , .		129
87	Sensorless sensing with WiFi. Tsinghua Science and Technology, 2015, 20, 1-6.	6.1	93
88	WiFi-Based Indoor Line-of-Sight Identification. IEEE Transactions on Wireless Communications, 2015, 14, 6125-6136.	9.2	61
89	Boosting Mobile Apps under Imbalanced Sensing Data. IEEE Transactions on Mobile Computing, 2015, 14, 1151-1161.	5.8	8
90	Non-Invasive Detection of Moving and Stationary Human With WiFi. IEEE Journal on Selected Areas in Communications, 2015, 33, 2329-2342.	14.0	266

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91	Mobility Increases Localizability. ACM Computing Surveys, 2015, 47, 1-34.	23.0	215
92	SmartGuide. , 2015, , .		4
93	Ambient rendezvous: Energy-efficient neighbor discovery via acoustic sensing. , 2015, , .		7
94	On Multipath Link Characterization and Adaptation for Device-Free Human Detection. , 2015, , .		16
95	Smartphones Based Crowdsourcing for Indoor Localization. IEEE Transactions on Mobile Computing, 2015, 14, 444-457.	5.8	324
96	Human Mobility Enhances Global Positioning Accuracy for Mobile Phone Localization. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 131-141.	5.6	52
97	Enhancing the Performance of Indoor Device-Free Passive Localization. International Journal of Distributed Sensor Networks, 2015, 11, 256162.	2.2	17
98	Trall: Pinpoint Trajectory for Indoor Localization. International Journal of Distributed Sensor Networks, 2015, 11, 372425.	2.2	2
99	PADS: Passive detection of moving targets with dynamic speed using PHY layer information. , 2014, , .		149
100	ToAuth: Towards Automatic Near Field Authentication for Smartphones. , 2014, , .		6
101	Intelligent sleep stage mining service with smartphones. , 2014, , .		57
102	Free Market of Crowdsourcing: Incentive Mechanism Design for Mobile Sensing. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 3190-3200.	5.6	199
103	Sherlock: Micro-Environment Sensing for Smartphones. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 3295-3305.	5.6	24
104	Localization-Oriented Network Adjustment in Wireless Ad Hoc and Sensor Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 146-155.	5.6	13
105	Hello: A generic flexible protocol for neighbor discovery. , 2014, , .		53
106	Towards Accurate Object Localization with Smartphones. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2731-2742.	5.6	16
107	CrossNavi. , 2014, , .		23
108	OTrack: Towards Order Tracking for Tags in Mobile RFID Systems. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 2114-2125.	5.6	33

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109	Energy-Efficient Neighbor Discovery in Mobile Ad Hoc and Wireless Sensor Networks: A Survey. IEEE Communications Surveys and Tutorials, 2014, 16, 1448-1459.	39.4	109
110	Omnidirectional Coverage for Device-Free Passive Human Detection. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 1819-1829.	5.6	77
111	Robust Trajectory Estimation for Crowdsourcing-Based Mobile Applications. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 1876-1885.	5.6	54
112	LiFi: Line-Of-Sight identification with WiFi. , 2014, , .		74
113	Robust Component-Based Localization in Sparse Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 1317-1327.	5.6	22
114	Detecting Outlier Measurements Based on Graph Rigidity for Wireless Sensor Network Localization. IEEE Transactions on Vehicular Technology, 2013, 62, 374-383.	6.3	54
115	Sensor Network Navigation without Locations. IEEE Transactions on Parallel and Distributed Systems, 2013, 24, 1436-1446.	5.6	26
116	WILL: Wireless Indoor Localization without Site Survey. IEEE Transactions on Parallel and Distributed Systems, 2013, 24, 839-848.	5.6	323
117	Does Wireless Sensor Network Scale? A Measurement Study on GreenOrbs. IEEE Transactions on Parallel and Distributed Systems, 2013, 24, 1983-1993.	5.6	189
118	MoLoc: On Distinguishing Fingerprint Twins. , 2013, , .		51
119	Footprints elicit the truth: Improving global positioning accuracy via local mobility. , 2013, , .		8
120	High-Accuracy TDOA-Based Localization without Time Synchronization. IEEE Transactions on Parallel and Distributed Systems, 2013, 24, 1567-1576.	5.6	88
121	OFA: An optimistic approach to conquer flip ambiguity in network localization. Computer Networks, 2013, 57, 1529-1544.	5.1	11
122	From RSSI to CSI. ACM Computing Surveys, 2013, 46, 1-32.	23.0	850
123	Localization of Wireless Sensor Networks in the Wild: Pursuit of Ranging Quality. IEEE/ACM Transactions on Networking, 2013, 21, 311-323.	3.8	100
124	Receiver Consensus: On-Time Warning Delivery for Vehicular Ad-Hoc Networks. IEEE Transactions on Emerging Topics in Computing, 2013, 1, 57-68.	4.6	20
125	Sea depth measurement with restricted floating sensors. Transactions on Embedded Computing Systems, 2013, 13, 1-21.	2.9	19
126	Beyond triangle inequality. ACM Transactions on Sensor Networks, 2013, 9, 1-20.	3.6	35



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127	Towards omnidirectional passive human detection. , 2013, , .		86
128	OTrack: Order tracking for luggage in mobile RFID systems. , 2013, , .		67
129	Receiver Consensus: On-time Warning Delivery for Vehicular Ad-hoc Networks. , 2012, , .		4
130	Ad-hoc Anonymity: Privacy Preservation for Location-based Services in Mobile Networks. , 2012, , .		3
131	Understanding Node Localizability of Wireless Ad Hoc and Sensor Networks. IEEE Transactions on Mobile Computing, 2012, 11, 1249-1260.	5.8	66
132	WILL: Wireless indoor localization without site survey. , 2012, , .		32
133	Locating in fingerprint space. , 2012, , .		578
134	Localization in non-localizable sensor and ad-hoc networks: A Localizability-aided approach. , 2011, , .		11
135	Edge Verifiability: Characterizing Outlier Measurements for Wireless Sensor Network Localization. , 2011, , .		0
136	Whistle: Synchronization-Free TDOA for Localization. , 2011, , .		34
137	Improving the Efficiency of Localization-Oriented Network Adjustment in Wireless Sensor Networks. IEEE Communications Letters, 2011, 15, 983-985.	4.1	3
138	Beyond rigidity: obtain localisability with noisy ranging measurement. International Journal of Ad Hoc and Ubiquitous Computing, 2011, 8, 114.	0.5	13
139	Guest editorial: Special issue on wireless sensor networks, cyber-physical systems, and internet of things. Tsinghua Science and Technology, 2011, 16, 559-560.	6.1	7
140	Location, Localization, and Localizability. , 2011, , .		39
141	Range-Based Network localization. , 2011, , 37-54.		1
142	Error Control. , 2011, , 75-96.		0
143	Location Privacy. , 2011, , 131-145.		0
144	Range-Free Network Localization. , 2011, , 55-74.		0

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145	Beyond Trilateration: On the Localizability of Wireless Ad Hoc Networks. IEEE/ACM Transactions on Networking, 2010, 18, 1806-1814.	3.8	142
146	Location, Localization, and Localizability. Journal of Computer Science and Technology, 2010, 25, 274-297.	1.5	265
147	Quality of Trilateration: Confidence-Based Iterative Localization. IEEE Transactions on Parallel and Distributed Systems, 2010, 21, 631-640.	5.6	202
148	Understanding Node Localizability of Wireless Ad-hoc Networks. , 2010, , .		30
149	Optimistic Localization: Avoiding Location Ambiguity in Wireless Ad-hoc Networks. , 2010, , .		0
150	ETOC: Obtaining robustness in component-based localization. , 2010, , .		7
151	Beyond Triangle Inequality: Sifting Noisy and Outlier Distance Measurements for Localization. , 2010, , .		17
152	Quality of Trilateration: Confidence Based Iterative Localization. , 2008, , .		35
153	Sensor network navigation without locations. , 2008, , .		12
154	Sea Depth Measurement with Restricted Floating Sensors. , 2007, , .		75