

Arkady Zaslavsky

List of Publications by Year in descending order

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185
papers

5,803
citations

304368

22
h-index

85405

71
g-index

195
all docs

195
docs citations

195
times ranked

5586
citing authors

#	ARTICLE	IF	CITATIONS
1	Context Aware Computing for The Internet of Things: A Survey. IEEE Communications Surveys and Tutorials, 2014, 16, 414-454.	24.8	1,974
2	Mining data streams. SIGMOD Record, 2005, 34, 18-26.	0.7	750
3	Sensing as a service model for smart cities supported by Internet of Things. Transactions on Emerging Telecommunications Technologies, 2014, 25, 81-93.	2.6	725
4	Challenges and Opportunities of Waste Management in IoT-Enabled Smart Cities: A Survey. IEEE Transactions on Sustainable Computing, 2017, 2, 275-289.	2.2	213
5	Development and evaluation of ontology for intelligent decision support in medical emergency management for mass gatherings. Decision Support Systems, 2013, 54, 1192-1204.	3.5	131
6	Context-Aware QoE Modelling, Measurement, and Prediction in Mobile Computing Systems. IEEE Transactions on Mobile Computing, 2015, 14, 920-936.	3.9	103
7	Assessing dynamic models for high priority waste collection in smart cities. Journal of Systems and Software, 2015, 110, 178-192.	3.3	93
8	An international Master's program in green ICT as a contribution to sustainable development. Journal of Cleaner Production, 2016, 135, 223-239.	4.6	93
9	Towards a theory of context spaces. , 0, , .		82
10	A stochastic optimization framework for planning of waste collection and value recovery operations in smart and sustainable cities. Waste Management, 2018, 78, 104-114.	3.7	67
11	Complex activity recognition using context-driven activity theory and activity signatures. ACM Transactions on Computer-Human Interaction, 2013, 20, 1-34.	4.6	65
12	A Survey of Classification Methods in Data Streams. , 2007, , 39-59.		62
13	Multiple-Agent Perspectives in Reasoning About Situations for Context-Aware Pervasive Computing Systems. IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans, 2008, 38, 729-742.	3.4	55
14	An Approach to Data Fusion for Context Awareness. Lecture Notes in Computer Science, 2005, , 353-367.	1.0	54
15	Scalable Energy-Efficient Distributed Data Analytics for Crowdsensing Applications in Mobile Environments. IEEE Transactions on Computational Social Systems, 2015, 2, 109-123.	3.2	41
16	Artificial intelligence-enabled context-aware air quality prediction for smart cities. Journal of Cleaner Production, 2020, 271, 121941.	4.6	38
17	Submission of transactions from mobile workstations in a cooperative multidatabase processing environment. , 0, , .		37
18	Estimating computation times of data-intensive applications. IEEE Distributed Systems Online, 2004, 5, 1-12.	0.5	35

#	ARTICLE	IF	CITATIONS
19	Reasoning about Context in Uncertain Pervasive Computing Environments. Lecture Notes in Computer Science, 2008, , 112-125.	1.0	34
20	The ECORA framework: A hybrid architecture for context-oriented pervasive computing. Pervasive and Mobile Computing, 2008, 4, 182-215.	2.1	33
21	Sensor Data Collection Using Heterogeneous Mobile Devices. , 2007, , .		31
22	Enabling run-time composition and support for heterogeneous pervasive multi-agent systems. Journal of Systems and Software, 2007, 80, 2039-2062.	3.3	31
23	Context-as-a-Service Platform: Exchange and Share Context in an IoT Ecosystem. , 2018, , .		29
24	Defining the Stack for Service Delivery Models and Interoperability in the Internet of Things: A Practical Case With OpenIoT-VDK. IEEE Journal on Selected Areas in Communications, 2015, 33, 676-689.	9.7	28
25	On-board Mining of Data Streams in Sensor Networks. , 2005, , 307-335.		27
26	Decision support for optimizing waste management. Journal of Decision Systems, 2018, 27, 68-78.	2.2	27
27	Data Stream Mining. , 2009, , 759-787.		25
28	Open Mobile Miner: A Toolkit for Building Situation-Aware Data Mining Applications. Journal of Organizational Computing and Electronic Commerce, 2013, 23, 224-248.	1.0	25
29	IoT-based decision support system for monitoring and mitigating atmospheric pollution in smart cities. Journal of Decision Systems, 2018, 27, 56-67.	2.2	25
30	Extending Global IP Connectivity for Ad Hoc Networks. Telecommunication Systems, 2003, 24, 221-250.	1.6	20
31	Towards an Adaptive Approach for Mining Data Streams in Resource Constrained Environments. Lecture Notes in Computer Science, 2004, , 189-198.	1.0	20
32	Cross-Layer Contextual Interactions in Wireless Networks. IEEE Communications Surveys and Tutorials, 2014, 16, 1114-1134.	24.8	20
33	An architecture to support distributed data mining services in e-commerce environments. , 0, , .		19
34	Comparison of Overlap Detection Techniques. Lecture Notes in Computer Science, 2002, , 51-60.	1.0	19
35	Context Definition and Query Language: Conceptual Specification, Implementation, and Evaluation. Sensors, 2019, 19, 1478.	2.1	18
36	Mobile agents:can they assist with context awareness ?. , 0, , .		17

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37	Context-aware adaptive data stream mining. Intelligent Data Analysis, 2009, 13, 423-434.	0.4	16
38	Formal verification of context and situation models in pervasive computing. Pervasive and Mobile Computing, 2013, 9, 98-117.	2.1	15
39	Mobility management for multiple diverse applications in heterogeneous wireless networks. , 0, , .		14
40	Efficient Execution of Complex Context Queries to Enable Near Real-Time Smart IoT Applications. Sensors, 2019, 19, 5457.	2.1	14
41	Addressing Information Processing Needs of Digital Agriculture with OpenIoT Platform. Lecture Notes in Computer Science, 2015, , 137-152.	1.0	14
42	Extending Context Spaces Theory by Proactive Adaptation. Lecture Notes in Computer Science, 2010, , 1-12.	1.0	14
43	M-MIP: Extended Mobile IP to Maintain Multiple Connections to Overlapping Wireless Access Networks. Lecture Notes in Computer Science, 2005, , 204-213.	1.0	13
44	On Development and Evaluation of Prototype Mobile Decision Support for Hospital Triage. , 0, , .		13
45	A decision-theoretic approach for quality-of-experience measurement and prediction. , 2011, , .		13
46	Extending Context Spaces Theory by Predicting Run-Time Context. Lecture Notes in Computer Science, 2009, , 8-21.	1.0	13
47	Techniques for Estimating the Computation and Communication Costs of Distributed Data Mining. Lecture Notes in Computer Science, 2002, , 603-612.	1.0	12
48	Context Aware Traffic Congestion Estimation to Compensate Intermittently Available Mobile Sensors. , 2009, , .		12
49	Intelligent Processing of K-Nearest Neighbors Queries Using Mobile Data Collectors in a Location Aware 3D Wireless Sensor Network. Lecture Notes in Computer Science, 2010, , 260-270.	1.0	12
50	A probabilistic context-aware approach for quality of experience measurement in pervasive systems. , 2011, , .		12
51	Context-aware application mobility support in pervasive computing environments. , 2009, , .		11
52	A knowledge-rich similarity measure for improving IT incident resolution process. , 2010, , .		11
53	Storing and Indexing IoT Context for Smart City Applications. Lecture Notes in Computer Science, 2016, , 115-128.	1.0	11
54	Database Replica Management Strategies in Multidatabase Systems with Mobile Hosts. , 1996, , 323-336.		11

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55	Dynamic Bayesian Networks for Sequential Quality of Experience Modelling and Measurement. Lecture Notes in Computer Science, 2011, , 135-146.	1.0	11
56	Context-Based Addressing: The Concept and an Implementation for Large-Scale Mobile Agent Systems Using Publish-Subscribe Event Notification. Lecture Notes in Computer Science, 2003, , 274-284.	1.0	10
57	Maintaining Gateway Connectivity in Multi-hop Ad hoc Networks. , 2005, , .		10
58	Traffic load metrics for multihomed mobile IP and global connectivity. Telecommunication Systems, 2006, 33, 155-185.	1.6	10
59	An Evaluation of Query Languages for Context-Aware Computing. , 0, , .		10
60	CDQL. , 2016, , .		9
61	Architecting IoT context storage management for context-as-a-service platform. , 2017, , .		9
62	Towards Distributed Workflow Enactment with Itineraries and Mobile Agent Management. , 2001, , 283-294.		9
63	Enriching a Situation Awareness Framework for IoT with Knowledge Base and Reasoning Components. Lecture Notes in Computer Science, 2017, , 41-54.	1.0	9
64	ECSTRA “ Distributed Context Reasoning Framework for Pervasive Computing Systems. Lecture Notes in Computer Science, 2011, , 1-13.	1.0	9
65	Programming the Mobility Behaviour of Agents by Composing Itineraries. Lecture Notes in Computer Science, 1999, , 214-226.	1.0	9
66	Application run time estimation. , 2002, , .		8
67	Fluid. , 2004, , .		8
68	Verification of uncertain context based on a theory of context spaces. International Journal of Pervasive Computing and Communications, 2007, 3, 30-56.	1.1	8
69	Adaptive Clutter-Aware Visualization for Mobile Data Stream Mining. , 2010, , .		8
70	Software Solutions to Internet Connectivity in Mobile Ad Hoc Networks. Lecture Notes in Computer Science, 2002, , 559-571.	1.0	8
71	Using Copy-Detection and Text Comparison Algorithms for Cross-Referencing Multiple Editions of Literary Works. Lecture Notes in Computer Science, 2001, , 103-114.	1.0	8
72	Quality and Cost Aware Service Selection in IoT-Context Management Platforms. , 2021, , .		8

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73	An Open Architecture for Pervasive Systems. , 2001, , 175-187.		7
74	Integration of ad hoc network and IP network capabilities for mobile hosts. , 0, , .		7
75	Reliable Multi-agent Systems with Persistent Publish/Subscribe Messaging. Lecture Notes in Computer Science, 2005, , 165-174.	1.0	7
76	Runtime efficiency of adaptive mobile software agents in pervasive computing environments. , 2009, , .		7
77	CoMiHoC: A Middleware Framework for Context Management in MANET Environment. , 2010, , .		7
78	CAVisAP: Context-Aware Visualization of Outdoor Air Pollution with IoT Platforms. , 2019, , .		7
79	Improving Operational Efficiency of Web Services with Mobile Agent Technology. , 0, , .		6
80	Clutter-Adaptive Visualization for Mobile Data Mining. , 2010, , .		6
81	From Sensory Data to Situation Awareness: Enhanced Context Spaces Theory Approach. , 2011, , .		6
82	Performance Based Cost Models for Improving Web Service Efficiency Through Dynamic Relocation. Lecture Notes in Computer Science, 2005, , 248-257.	1.0	6
83	Situation-Aware Adaptive Visualization for Sensory Data Stream Mining. Lecture Notes in Computer Science, 2010, , 43-58.	1.0	6
84	Requirements, Limitations and Recommendations for Enabling End-to-End Quality of Context-Awareness in IoT Middleware. Sensors, 2022, 22, 1632.	2.1	6
85	Conceptual development of an information systems framework for improving continuity in epidemiological research. European Journal of Epidemiology, 1998, 14, 587-593.	2.5	5
86	Awareness and agility for autonomic distributed systems: platform-independent and publish-subscribe event-based communication for mobile agents. , 0, , .		5
87	A generic cost model and infrastructure for improving Web service efficiency through dynamic relocation. , 2005, , .		5
88	Improving situation awareness for intelligent on-board vehicle management system using context middleware. , 2009, , .		5
89	Cost-Efficient Data Collection Approach Using K-Nearest Neighbors in a 3D Sensor Network. , 2010, , .		5
90	QoE estimation and prediction using hidden Markov models in heterogeneous access networks. , 2012, , .		5

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91	IoT-enabled Smart Waste Disposal System: a Use Case for the Context Management Platform. , 2020, , .		5
92	Service Oriented Context-Aware Software Agents for Greater Efficiency. Lecture Notes in Computer Science, 2010, , 62-71.	1.0	5
93	An Enterprise Viewpoint of Wireless Virtual Communities and the Associated Uses of Software Agents. , 2001, , 265-288.		5
94	Suffix Vector: A Space-Efficient Suffix Tree Representation. Lecture Notes in Computer Science, 2001, , 707-718.	1.0	5
95	Automating directory services for mobile agent tracking. , 0, , .		4
96	Mission impossible? Automatically assembling agents from high-level task descriptions. , 0, , .		4
97	Integrated ambient services as enhancement to physical marketplaces. , 2004, , .		4
98	ConEx: Context Exchange in MANETs for Real time multimedia. , 0, , .		4
99	Port-based Multihomed Mobile IPv6: Load-balancing in Mobile Ad hoc Networks. , 2007, , .		4
100	Support for real-time decision making in mobile financial applications. Information Systems and E-Business Management, 2008, 6, 257-278.	2.2	4
101	Towards Context Aware Adaptation in Wireless Networks. , 2008, , .		4
102	Context-Aware Mobile Medical Emergency Management Decision Support System for Safe Transportation. Annals of Information Systems, 2011, , 163-181.	0.5	4
103	An Itinerary Scripting Language for Mobile Agents in Enterprise Applications. , 2001, , .		4
104	Running Variance Metric for Evaluating Performance of Wireless IP Networks in the MobileCity Testbed. , 0, , .		4
105	A Multiagent Mission Coordination System for Continuous Situational Awareness of Bushfires. IEEE Transactions on Automation Science and Engineering, 2023, 20, 1275-1291.	3.4	4
106	Enabling awareness in dynamic mobile agent environments. , 2000, , .		3
107	Title is missing!. Mobile Networks and Applications, 2003, 8, 317-326.	2.2	3
108	Run-time mission evolution in mobile multiagent systems. , 0, , .		3

#	ARTICLE	IF	CITATIONS
109	Maintaining Continuous Dependability in Sensor-Based Context-Aware Pervasive Computing Systems. , 0, , .		3
110	Evaluating Cross-layer Context Exchange in Mobile Ad-hoc Networks with Colored Petri Nets. , 2007, , .		3
111	Context Driven Compositional Adaptation of Mobile Agents. , 2008, , .		3
112	Cost Efficient Data Collection of Sensory Originated Data using Context-Aware Mobile Devices. , 2008, , .		3
113	Runtime Adaptation of Multiagent Systems for Ubiquitous Environments. , 2009, , .		3
114	Building Activity Definitions to Recognize Complex Activities Using an Online Activity Toolkit. , 2012, , .		3
115	RCOS: Real Time Context Sharing Across a Fleet of Smart Mobile Devices. Lecture Notes in Computer Science, 2016, , 87-100.	1.0	3
116	Component Based Approach for Composing Adaptive Mobile Agents. Lecture Notes in Computer Science, 2009, , 90-99.	1.0	3
117	Parallel and Distributed Document Overlap Detection on the Web. Lecture Notes in Computer Science, 2001, , 206-214.	1.0	3
118	A Transaction Model to Support Disconnected Operation in a Mobile Computing Environment. , 1998, , 120-130.		3
119	Primary copy method and its modifications for database replication in distributed mobile computing environment. , 0, , .		2
120	Distributed and persistent mobile agents for heterogeneous personal communications systems. , 0, , .		2
121	Towards an information systems framework for dynamic organisational memory. , 0, , .		2
122	Meta object approach to database schema integration. , 0, , .		2
123	Federated data mining services and a supporting XML-based language. , 0, , .		2
124	Maintaining consistency of twin transaction model using mobility-enabled distributed file system environment. , 0, , .		2
125	Adaptable consistency control mechanism for a mobility enabled file system. , 0, , .		2
126	Merging Context Perspectives: An Approach to Adaptive Agent Reasoning in Pervasive Computing Systems. , 0, , .		2

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127	A Smart Proxy for a Next Generation Web Services Transaction. , 2007, , .		2
128	VERSAG: Context-Aware Adaptive Mobile Agents for the Semantic Web. , 2008, , .		2
129	PRONET: Proactive context-aware support for mobility in heterogeneous access networks. , 2009, , .		2
130	Dynamic situation modeling and reasoning under uncertainty. , 2009, , .		2
131	Collaborative context management framework for mobile ad hoc network environments. , 2010, , .		2
132	Towards a Robust Concurrent and Interleaved Activity Recognition of Mobile Users. , 2011, , .		2
133	Building ubiquitous computing applications using the VERSAG adaptive agent framework. Journal of Systems and Software, 2013, 86, 501-519.	3.3	2
134	Will Internet of Things flood DGSS with data?. , 2013, , .		2
135	Situation-awareness and reasoning using uncertain context in mobile peer-to-peer environments. International Journal of Pervasive Computing and Communications, 2013, 9, 52-71.	1.1	2
136	DisCPAQ: Distributed Context Acquisition and Reasoning for Personalized Indoor Air Quality Monitoring in IoT-Based Systems. Lecture Notes in Computer Science, 2017, , 75-86.	1.0	2
137	Smart Sensing and Sensor Data Collection on the Move for Modelling Intelligent Environments. Lecture Notes in Computer Science, 2008, , 306-317.	1.0	2
138	On-the-Fly Situation Composition within Smart Spaces. Lecture Notes in Computer Science, 2009, , 52-65.	1.0	2
139	Knowledge Elicitation through Web-Based Data Mining Services. Lecture Notes in Computer Science, 2001, , 120-134.	1.0	2
140	Using the Publish-Subscribe Communication Genre for Mobile Agents. Lecture Notes in Computer Science, 2003, , 180-191.	1.0	2
141	CrypP: Multi-Faceted Activity-Infused Presence in Emerging Social Networks. Lecture Notes in Computer Science, 2010, , 50-61.	1.0	2
142	Retrieval in CBR Using a Combination of Similarity and Association Knowledge. Lecture Notes in Computer Science, 2011, , 1-14.	1.0	2
143	Adaptive Cache Validation for Mobile File Systems. Lecture Notes in Computer Science, 1999, , 181-192.	1.0	2
144	Supporting Adaptive Real-time Mobile Communication with Multilayer Context Awareness. International Federation for Information Processing, 2008, , 435-446.	0.4	2

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145	A simulation model of adaptive protocols in distributed computing systems with mobile hosts. , 0, , .		1
146	Petri nets analysis of transaction and submitter management protocols in mobile distributed computing environment. , 0, , .		1
147	Document archiving, replication and migration container for mobile Web users. , 1998, , .		1
148	Mobility in Databases and Distributed Systems: Summing up Achievements of the Past Decade. Mobile Networks and Applications, 2004, 9, 455-457.	2.2	1
149	CAWAnalyser: Enhancing Wireless Intrusion Response with Runtime Context-Awareness. Lecture Notes in Computer Science, 2005, , 239-246.	1.0	1
150	Just in time mobile agent generation and management. , 2005, , .		1
151	An Assembly and Execution Shell for MultiAgent Systems. , 0, , .		1
152	The External Fault-tolerant Layer Supporting Multi-agent Systems from Different Vendors. , 0, , .		1
153	Performance Evaluation of Dynamically Assembled Multiagent Systems. , 0, , .		1
154	A computer-facilitated method for matching incident cases using semantic similarity measurement. , 2009, , .		1
155	A Context Middleware Framework for Managing Context in Mobile Ad Hoc Network Environment. , 2009, , .		1
156	Overcoming uncertainty of roadside sensors with smart adaptive traffic congestion analysis system. , 2009, , .		1
157	Real time traffic congestion degree computation for minor sensorless roads using cost efficient context reasoning. , 2010, , .		1
158	IMPROVING EFFICIENCY OF SERVICE-ORIENTED CONTEXT-DRIVEN SOFTWARE AGENTS. Cybernetics and Systems, 2011, 42, 324-340.	1.6	1
159	Building Knowledge from Social Networks on What is Important to Drivers in Constrained Road Infrastructure. Procedia Computer Science, 2014, 35, 720-729.	1.2	1
160	ToA estimation system for efficient cycling in Smart Cities. , 2017, , .		1
161	Situation-Aware Adaptive Processing (SAAP) of Data Streams. Computer Communications and Networks, 2009, , 313-338.	0.8	1
162	A Case Retrieval Approach Using Similarity and Association Knowledge. Lecture Notes in Computer Science, 2011, , 218-235.	1.0	1

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163	A-GATE: A System of Relay and Translation Gateways for Communication among Heterogeneous Agents in Ad Hoc Wireless Environments. Lecture Notes in Computer Science, 2003, , 212-223.	1.0	1
164	Adaptation Support for Agent Based Pervasive Systems. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 90-101.	0.2	1
165	Crystal-Ball and Magic Wand Combined: Predicting Situations and Making Them Happen. Lecture Notes in Computer Science, 2020, , 683-697.	1.0	1
166	GENERIC FAULT-TOLERANT LAYER SUPPORTING PUBLISH/SUBSCRIBE MESSAGING IN MOBILE AGENT SYSTEMS. , 2007, , 207-214.		1
167	Smartness of Pervasive Computing Systems through Context-Awareness. Lecture Notes in Computer Science, 2008, , 261-262.	1.0	1
168	Software assisted handover of mobile clients in heterogeneous wireless computing environments. , 0, , .		0
169	Expressing dynamics of mobile agent systems using ambient calculus. , 0, , .		0
170	Using knowledge discovery techniques for database schema refinement. , 0, , .		0
171	Efficiency of data structures for detecting overlaps in digital documents. , 0, , .		0
172	Domain-specific metamodels for heterogeneous information systems. , 2003, , .		0
173	Communicative acts of Elvin-enhanced mobile agents. , 0, , .		0
174	Countering agent security vulnerabilities using an extended SENSE schema. , 0, , .		0
175	Generating and Supporting Dynamic Heterogeneous MAS. , 0, , .		0
176	Coverage Area Computation on the Run for Efficient Sensor Data Collection. , 2008, , .		0
177	Spring Framework in Smart Proxy Transaction Model. , 2009, , .		0
178	Landscaping Future Interaction: Special issue on Mobile and Ubiquitous Multimedia. IEEE MultiMedia, 2010, 17, 12-15.	1.5	0
179	Adaptive Delivery of Multimedia Data in Heterogeneous and Mobile Environments. Lecture Notes in Computer Science, 2001, , 41-52.	1.0	0
180	Incorporating Mobility into an Agent Interoperability-Based Environment. , 2002, , 209-224.		0

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181	Mobile Agent Supported Cooperative Work. Multiagent Systems, Artificial Societies, and Simulated Organizations, 2003, , 205-229.	2.5	0
182	Determining user presence using context in a decentralized unified messaging system (IPAD-UMS). , 2008, , .		0
183	Measuring Quality of Experience in Pervasive Systems Using Probabilistic Context-Aware Approach. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2012, , 330-331.	0.2	0
184	Capturing Buying Behaviour Using a Layered User Model. Lecture Notes in Computer Science, 2007, , 109-118.	1.0	0
185	Towards a mobile enterprise framework. , 0, , .		0