Daniel P Siewiorek

List of Publications by Year
in descending order

71 papers	2,906 citations	331259 21 h-index	243296 44 g-index
72 all docs	72 docs citations	72 times ranked	1908 citing authors

#	Article	IF	Citations
1	Project Aura: toward distraction-free pervasive computing. IEEE Pervasive Computing, 2002, 1, 22-31.	1.1	591
2	Reliable Computer Systems. , 0, , .		259
3	Ecological Momentary Assessment in Behavioral Research: Addressing Technological and Human Participant Challenges. Journal of Medical Internet Research, 2017, 19, e77.	2.1	185
4	Fault injection experiments using FIAT. IEEE Transactions on Computers, 1990, 39, 575-582.	2.4	181
5	Error log analysis: statistical modeling and heuristic trend analysis. IEEE Transactions on Reliability, 1990, 39, 419-432.	3.5	139
6	Rethinking location sharing. , 2010, , .		102
7	A survey of highly parallel computing. Computer, 1982, 15, 9-24.	1.2	91
8	Architectures and algorithms for on-line failure recovery in redundant disk arrays. Distributed and Parallel Databases, 1994, 2, 295-335.	1.0	75
9	Location and Activity Recognition Using eWatch: A Wearable Sensor Platform. Lecture Notes in Computer Science, 2006, , 86-102.	1.0	68
10	Use of the concept of transparency in the design of hierarchically structured systems. Communications of the ACM, 1975, 18, 401-408.	3.3	61
11	Measuring software dependability by robustness benchmarking. IEEE Transactions on Software Engineering, 1997, 23, 366-378.	4.3	60
12	Activity-Based Computing. IEEE Pervasive Computing, 2008, 7, 20-21.	1.1	50
13	Performance prediction and calibration for a class of multiprocessors. IEEE Transactions on Computers, 1988, 37, 1353-1365.	2.4	46
14	Matching interface design with user tasks. Modalities of interaction with CMU wearable computers. IEEE Personal Communications, 1996, 3, 14-25.	4.5	45
15	Architecture of Fault-Tolerant Computers. Computer, 1984, 17, 9-18.	1.2	44
16	Nonideal battery and main memory effects on CPU speed-setting for low power. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2001, 9, 29-34.	2.1	44
17	Application design for wearable and context-aware computers. IEEE Pervasive Computing, 2002, 1, 20-29.	1.1	43
18	Wearable context-aware food recognition for calorie monitoring. , 2008, , .		42

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19	Observations on the effects of fault manifestation as a function of workload. IEEE Transactions on Computers, 1992, 41, 559-566.	2.4	41
20	Fully Automated Reduction of Ocular Artifacts in High-Dimensional Neural Data. IEEE Transactions on Biomedical Engineering, 2011, 58, 598-606.	2.5	40
21	Reflections on industry trends and experimental research in dependability. IEEE Transactions on Dependable and Secure Computing, 2004, 1, 109-127.	3.7	39
22	Learning to assess the quality of stroke rehabilitation exercises. , 2019, , .		35
23	WEAVER: A Knowledge-Based Routing Expert. IEEE Design and Test of Computers, 1986, 3, 12-23.	1.4	33
24	New frontiers of application design. Communications of the ACM, 2002, 45, 79-82.	3.3	32
25	Agent-assisted task management that reduces email overload. , 2010, , .		32
26	A methodology for the rapid injection of transient hardware errors. IEEE Transactions on Computers, 1996, 45, 881-891.	2.4	31
27	Evaluation and comparison of fault-tolerant software techniques. IEEE Transactions on Reliability, 1993, 42, 190-204.	3.5	26
28	Exploiting Domain Knowledge in IC Cell Layout. IEEE Design and Test of Computers, 1984, 1, 52-64.	1.4	24
29	MICON: a single-board computer synthesis tool. IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems, 1988, 4, 37-46.	0.8	24
30	The influence of parallel decomposition strategies on the performance of multiprocessor systems. Computer Architecture News, 1985, 13, 396-405.	2.5	23
31	Automated exploration of the design space for register transfer (RT) systems. Computer Architecture News, 1973, 2, 101-106.	2.5	22
32	A Reliability Model for Various Switch Designs in Hybrid Redundancy. IEEE Transactions on Computers, 1976, C-25, 115-133.	2.4	22
33	The Use of LSI Modules in Computer Structures: Trends and Limitations. Computer, 1978, 11, 16-25.	1.2	20
34	Cache behavior of combinator graph reduction. ACM Transactions on Programming Languages and Systems, 1992, 14, 265-297.	1.7	20
35	Mission reliability analysis of fault-tolerant multiple-phased systems. Reliability Engineering and System Safety, 2008, 93, 1036-1046.	5.1	20
36	The CMU RT-CAD system. , 1976, , .		20

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37	Supporting collaborative learning in engineering design. Expert Systems With Applications, 2006, 31, 734-741.	4.4	19
38	Automated knowledge acquisition for a computer hardware systhesis system. International Journal of Human-Computer Studies, 1989, 1, 321-340.	1.2	17
39	Architecture and Applications of Virtual Coaches. Proceedings of the IEEE, 2012, 100, 2472-2488.	16.4	17
40	Integrating Design Education, Research and Practice at Carnegie Mellon: A Multiâ€disciplinary Course in Wearable Computers. Journal of Engineering Education, 1996, 85, 279-285.	1.9	16
41	Towards a Virtual Coach for manual wheelchair users. , 2008, , .		16
42	Measuring designer performance to verify design automation systems. IEEE Transactions on Computers, 1981, C-30, 48-61.	2.4	15
43	iPod-based in-home system for monitoring gaze-stabilization exercise compliance of individuals with vestibular hypofunction. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 69.	2.4	15
44	Using physiological sensors to detect levels of user frustration induced by system delays. , 2015, , .		15
45	Understanding how visual representations of location feeds affect end-user privacy concerns. , 2011, , .		14
46	Interactive hybrid approach to combine machine and human intelligence for personalized rehabilitation assessment. , 2020, , .		14
47	Synchronization and voting. IEEE Transactions on Computers, 1981, C-30, 161-164.	2.4	13
48	Selective Sampling Strategies to Conserve Power in Context Aware Devices. , 2007, , .		13
49	Modification of: error log analysis: statistical modeling and heuristic trend analysis. IEEE Transactions on Reliability, 1992, 41, 599-601, 607.	3.5	12
50	The Efficacy of a Multicomponent Functional Fitness Program Based on Exergaming on Cognitive Functioning of Healthy Older Adults: A Randomized Controlled Trial. Journal of Aging and Physical Activity, 2021, 29, 586-594.	0.5	11
51	Nonideal battery properties and their impact on software design for wearable computers. IEEE Transactions on Computers, 2003, 52, 979-984.	2.4	10
52	Automated Filtering of Common-Mode Artifacts in Multichannel Physiological Recordings. IEEE Transactions on Biomedical Engineering, 2013, 60, 2760-2770.	2.5	9
53	Sparse linear regression with elastic net regularization for brain-computer interfaces. , 2012, 2012, 4275-8.		8
54	KLEM: A Method for Predicting User Interaction Time and System Energy Consumption during Application Design. , 2007, , .		7

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55	Engineering workstations-ICs: the brains of a workstation. IEEE Spectrum, 1992, 29, 52-54.	0.5	5
56	Wearable computers. IEEE Potentials, 1994, 13, 36-38.	0.2	5
57	Frequency tracking and variable bandwidth for line noise filtering without a reference. , 2011, 2011, 7908-11.		5
58	A Survey of Feedback Modalities for Wheelchair Power Seat Functions. IEEE Pervasive Computing, 2012, 11, 54-62.	1.1	4
59	Emotion Recognition Modulating the Behavior of Intelligent Systems. , 2013, , .		3
60	Towards an Interactive Assessment Framework for Engineering Design Learning. , 2007, , .		3
61	Modeling and measurement of the impact of Input/Output on system performance. Computer Architecture News, 1991, 19, 390-399.	2.5	2
62	Learning an Orchestra Conductor's Technique Using a Wearable Sensor Platform. , 2007, , .		2
63	Lessons learned designing multi-modal Ecological Momentary Assessment tools. Technology and Disability, 2010, 22, 41-51.	0.3	2
64	Invited talk: Virtual coaches in health care. , 2012, , .		2
65	The Book Computer Structures: Thoughts After 40 Years. IEEE Annals of the History of Computing, 2011, 33, 89-95.	0.2	1
66	MICON: Automated Design of Computer Systems. , 1991, , 105-125.		1
67	A Computer System for Accessing Ambient Display and Computing Resources in Wearable Environments. Proceedings International Symposium on Wearable Computers, 2006, , .	0.0	0
68	Rapid Prototyping Course on Mobile Computer Systems. , 2007, , .		0
69	Special session in honor of randy pausch. , 2008, , .		0
70	Workshop on open resilient human-aware Cyber-physical systems. , 2012, , .		0
71	2<sup>nd</sup> workshop on open resilient human-aware cyber-physical systems. , 2013, , .		0