Luis Ceze

List of Publications by Year
in descending order

64 papers	3,808 citations	218677 26 h-index	197818 49 g-index
74 all docs	74 docs citations	74 times ranked	2182 citing authors

#	Article	IF	Citations
1	Multiplexed direct detection of barcoded protein reporters on a nanopore array. Nature Biotechnology, 2022, 40, 42-46.	17.5	27
2	Synthetic DNA applications in information technology. Nature Communications, 2022, 13, 352.	12.8	52
3	Passively sensing SARS-CoV-2 RNA in public transit buses. Science of the Total Environment, 2022, 821, 152790.	8.0	6
4	Combinatorial PCR Method for Efficient, Selective Oligo Retrieval from Complex Oligo Pools. ACS Synthetic Biology, 2022, 11, 1727-1734.	3.8	8
5	Integrating DNA Encapsulates and Digital Microfluidics for Automated Data Storage in DNA. Small, 2022, 18, e2107381.	10.0	21
6	An Empirical Comparison of Preservation Methods for Synthetic DNA Data Storage. Small Methods, 2021, 5, e2001094.	8.6	34
7	DNA Sequencing Flow Cells and the Security of the Molecular-Digital Interface. Proceedings on Privacy Enhancing Technologies, 2021, 2021, 413-432.	2.8	1
8	Molecular-level similarity search brings computing to DNA data storage. Nature Communications, 2021, 12, 4764.	12.8	34
9	Scaling DNA data storage with nanoscale electrode wells. Science Advances, 2021, 7, eabi6714.	10.3	35
10	ASPLOS Report. IEEE Design and Test, 2020, 37, 119-123.	1.2	0
11	PurpleDrop: A Digital Microfluidics-Based Platform for Hybrid Molecular-Electronics Applications. IEEE Micro, 2020, 40, 76-86.	1.8	5
12	Rapid and robust assembly and decoding of molecular tags with DNA-based nanopore signatures. Nature Communications, 2020, 11, 5454.	12.8	29
13	Using Strand Displacing Polymerase To Program Chemical Reaction Networks. Journal of the American Chemical Society, 2020, 142, 9587-9593.	13.7	19
14	Quantifying molecular bias in DNA data storage. Nature Communications, 2020, 11, 3264.	12.8	53
15	Probing the physical limits of reliable DNA data retrieval. Nature Communications, 2020, 11, 616.	12.8	62
16	Stabilizing synthetic DNA for long-term data storage with earth alkaline salts. Chemical Communications, 2020, 56, 3613-3616.	4.1	38
17	DNA assembly for nanopore data storage readout. Nature Communications, 2019, 10, 2933.	12.8	80
18	Puddle. , 2019, , .		24

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19	Molecular digital data storage using DNA. Nature Reviews Genetics, 2019, 20, 456-466.	16.3	312
20	Combining Data Longevity with High Storage Capacityâ€”Layerâ€byâ€Layer DNA Encapsulated in Magnetic Nanoparticles. Advanced Functional Materials, 2019, 29, 1901672.	14.9	65
21	Demonstration of End-to-End Automation of DNA Data Storage. Scientific Reports, 2019, 9, 4998.	3.3	81
22	High density DNA data storage library via dehydration with digital microfluidic retrieval. Nature Communications, 2019, 10, 1706.	12.8	99
23	Scaling Microfluidics to Complex, Dynamic Protocols: Invited Paper. , 2019, , .		1
24	Iterative Search for Reconfigurable Accelerator Blocks With a Compiler in the Loop. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 407-418.	2.7	9
25	DNA Data Storage and Hybrid Molecularâ€“Electronic Computing. Proceedings of the IEEE, 2019, 107, 63-72.	21.3	44
26	Random access in large-scale DNA data storage. Nature Biotechnology, 2018, 36, 242-248.	17.5	445
27	A Taxonomy of General Purpose Approximate Computing Techniques. IEEE Embedded Systems Letters, 2018, 10, 2-5.	1.9	25
28	Architecture Considerations for Stochastic Computing Accelerators. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 2277-2289.	2.7	26
29	MATIC: Learning around errors for efficient low-voltage neural network accelerators. , 2018, , .		35
30	Energy-Efficient Neural Network Acceleration in the Presence of Bit-Level Memory Errors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 4285-4298.	5.4	33
31	A Content-Addressable DNA Database with Learned Sequence Encodings. Lecture Notes in Computer Science, 2018, , 55-70.	1.3	20
32	Energy-efficient hybrid stochastic-binary neural networks for near-sensor computing. , 2017, , .		74
33	A DNA-Based Archival Storage System. IEEE Micro, 2017, , 1-1.	1.8	5
34	Toward a DNA-Based Archival Storage System. IEEE Micro, 2017, 37, 98-104.	1.8	41
35	Exploring computation-communication tradeoffs in camera systems. , 2017, , .		8
36	A DNA-Based Archival Storage System. , 2016, , .		147

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37	A DNA-Based Archival Storage System. ACM SIGPLAN Notices, 2016, 51, 637-649.	0.2	36
38	High-Density Image Storage Using Approximate Memory Cells. ACM SIGPLAN Notices, 2016, 51, 413-426.	0.2	13
39	A DNA-Based Archival Storage System. Operating Systems Review (ACM), 2016, 50, 637-649.	1.9	59
40	A DNA-Based Archival Storage System. Computer Architecture News, 2016, 44, 637-649.	2.5	28
41	Approximate Computing: Making Mobile Systems More Efficient. IEEE Pervasive Computing, 2015, 14, 9-13.	1.3	24
42	SNNAP: Approximate computing on programmable SoCs via neural acceleration. , 2015, , .		86
43	General-purpose code acceleration with limited-precision analog computation. Computer Architecture News, 2014, 42, 505-516.	2.5	63
44	Data Race Detection with Minimal Hardware Support. Computer Journal, 2014, 57, 675-692.	2.4	1
45	DDOS. ACM SIGPLAN Notices, 2013, 48, 499-508.	0.2	25
46	DNA-based molecular architecture with spatially localized components. Computer Architecture News, 2013, 41, 177-188.	2.5	20
47	Neural Acceleration for General-Purpose Approximate Programs. , 2012, , .		484
48	Characterizing the Performance and Energy Efficiency of Lock-Free Data Structures. , 2011, , .		29
49	Isolating and understanding concurrency errors using reconstructed execution fragments. ACM SIGPLAN Notices, 2011, 46, 378-388.	0.2	11
50	EnerJ. ACM SIGPLAN Notices, 2011, 46, 164-174.	0.2	243
51	Checked Load: Architectural support for JavaScript type-checking on mobile processors. , 2011, , .		21
52	RCDC. Computer Architecture News, 2011, 39, 67-78.	2.5	2
53	CoreDet. ACM SIGPLAN Notices, 2010, 45, 53-64.	0.2	58
54	Conflict exceptions. Computer Architecture News, 2010, 38, 210-221.	2.5	6

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55	CoreDet. Computer Architecture News, 2010, 38, 53-64.	2.5	36
56	DMP: Deterministic Shared-Memory Multiprocessing. IEEE Micro, 2010, 30, 40-49.	1.8	22
57	A limit study of JavaScript parallelism. , 2010, , .		26
58	Two hardware-based approaches for deterministic multiprocessor replay. Communications of the ACM, 2009, 52, 93-100.	4.5	23
59	The Bulk Multicore architecture for improved programmability. Communications of the ACM, 2009, 52, 58-65.	4.5	122
60	Atom-Aid: Detecting and Surviving Atomicity Violations. , 2008, , .		97
61	DeLorean: Recording and Deterministically Replaying Shared-Memory Multiprocessor Execution Ef?ciently. , 2008, , .		121
62	SoftSig. Operating Systems Review (ACM), 2008, 42, 145-156.	1.9	1
63	DeLorean. Computer Architecture News, 2008, 36, 289-300.	2.5	53
64	Bulk Disambiguation of Speculative Threads in Multiprocessors. Computer Architecture News, 2006, 34, 227-238.	2.5	80