Carlos Garcia Sanchez

List of Publications by Year
in descending order

52 papers	504 citations	686830 13 h-index	794141 19 g-index
55 all docs	55 docs citations	55 times ranked	581 citing authors

#	Article	IF	Citations
1	Evaluation of Intel's DPC++ Compatibility Tool in heterogeneous computing. Journal of Parallel and Distributed Computing, 2022, 165, 120-129.	2.7	15
2	Migrating CUDA to oneAPI: A Smith-Waterman Case Study. Lecture Notes in Computer Science, 2022, , 103-116.	1.0	5
3	HEVC optimization based on human perception for real-time environments. Multimedia Tools and Applications, 2020, 79, 16001-16033.	2.6	3
4	CNN Inference acceleration using low-power devices for human monitoring and security scenarios. Computers and Electrical Engineering, 2020, 88, 106859.	3.0	9
5	SWIMM 2.0: Enhanced Smith–Waterman on Intel's Multicore and Manycore Architectures Based on AVX-512 Vector Extensions. International Journal of Parallel Programming, 2019, 47, 296-316.	1.1	19
6	Portability Study of an OpenCL Algorithm for Automatic Target Detection in Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9499-9511.	2.7	15
7	Multicore Real-Time Implementation of a Full Hyperspectral Unmixing Chain. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 744-748.	1.4	7
8	Portable real-time DCT-based steganography using OpenCL. Journal of Real-Time Image Processing, 2018, 14, 87-99.	2.2	13
9	OSWALD. International Journal of High Performance Computing Applications, 2018, 32, 337-350.	2.4	26
10	Fast and effective CU size decision based on spatial and temporal homogeneity detection. Multimedia Tools and Applications, 2018, 77, 5907-5927.	2.6	13
11	Complexity reduction in the HEVC/H265 standard based on smooth region classification. , 2018, 73, 24-39.		13
12	SWIFOLD: Smith-Waterman implementation on FPGA with OpenCL for long DNA sequences. BMC Systems Biology, 2018, 12, 96.	3.0	29
13	Acceleration and energy consumption optimization in cascading classifiers for face detection on low-cost ARM big. LITTLE asymmetric architectures. International Journal of Circuit Theory and Applications, 2018, 46, 1756.	1.3	3
14	Accelerating Smith-Waterman Alignment of Long DNA Sequences with OpenCL on FPGA. Lecture Notes in Computer Science, 2017, , 500-511.	1.0	11
15	Embedded Grammars for Grammatical Evolution on GPGPU. Lecture Notes in Computer Science, 2017, , 789-805.	1.0	0
16	Code obfuscation using very long identifiers for FFT motion estimation models in embedded processors. Journal of Real-Time Image Processing, 2016, 11, 817-827.	2.2	2
17	Fast CU size decision based on temporal homogeneity detection. , 2016, , .		2
18	4K-based intra and interprediction techniques for HEVC. Proceedings of SPIE, 2016, , .	0.8	1

#	Article	IF	Citations
19	GPU Implementation of Spatial–Spectral Preprocessing for Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1671-1675.	1.4	8
20	State-of-the-Art in Smith–Waterman Protein Database Search on HPC Platforms. , 2016, , 197-223.		3
21	HEVC optimizations for medical environments. , 2016, , .		2
22	Real-time motion estimation for image and video processing applications. Journal of Real-Time Image Processing, 2016, 11, 625-631.	2.2	13
23	Non-negative Matrix Factorization on Low-Power Architectures and Accelerators: A Comparative Study. Computers and Electrical Engineering, 2015, 46, 139-156.	3.0	1
24	An energy–aware performance analysis of SWIMM: *S*mith–*W*aterman implementation on *I*ntel's *M*ulticore and *M*anycore architectures. Concurrency Computation Practice and Experience, 2015, 27, 5517-5537.	1.4	15
25	Customized Nios II multi-cycle instructions to accelerate block-matching techniques. Proceedings of SPIE, 2015, , .	0.8	0
26	Performance portability study of an automatic target detection and classification algorithm for hyperspectral image analysis using OpenCL. , 2015, , .		2
27	Smith-Waterman Protein Search with OpenCL on an FPGA. , 2015, , .		6
28	NMF-mGPU: non-negative matrix factorization on multi-GPU systems. BMC Bioinformatics, 2015, 16, 43.	1.2	45
29	Fast-coding robust motion estimation model in a GPU. Proceedings of SPIE, 2015, , .	0.8	0
30	Proteogenomics Dashboard for the Human Proteome Project. Journal of Proteome Research, 2015, 14, 3738-3749.	1.8	11
31	Early Experiences with OpenCL on FPGAs: Convolution Case Study. , 2015, , .		11
32	Parallel trajectory synchronization for aircraft conflicts resolution. , 2015, , .		0
33	OpenACC-based GPU acceleration of an optical flow algorithm. , 2015, , .		2
34	Smith-Waterman algorithm on heterogeneous systems: A case study. , 2014, , .		12
35	Acceleration of block-matching algorithms using a custom instruction-based paradigm on a Nios II microprocessor. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	27
36	Robust motion estimation on a low-power multi-core DSP. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	9

#	Article	IF	Citations
37	Multi-GPU based on multicriteria optimization for motion estimation system. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	15
38	Hardware implementation of machine vision systems: image and video processing. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.0	5
39	Non-negative matrix factorization on low-power architectures. , 2013, , .		1
40	Offset Printing Plate Quality Sensor on a Low-Cost Processor. Sensors, 2013, 13, 14277-14300.	2.1	7
41	GPUâ€based acceleration of bioâ€inspired motion estimation model. Concurrency Computation Practice and Experience, 2013, 25, 1037-1056.	1.4	19
42	Implementation of a Low-Cost Mobile Devices to Support Medical Diagnosis. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-9.	0.7	2
43	A Low Cost Matching Motion Estimation Sensor Based on the NIOS II Microprocessor. Sensors, 2012, 12, 13126-13149.	2.1	30
44	OpenIRS-UCM. , 2012, , .		3
45	Biclustering and classification analysis in gene expression using Nonnegative Matrix Factorization on multi-GPU systems. , 2011, , .		11
46	On-Line Multi-Threaded Processing of Web User-Clicks on Multi-Core Processors. Lecture Notes in Computer Science, 2011, , 222-235.	1.0	0
47	Building efficient multi-threaded search nodes. , 2010, , .		5
48	bioNMF: a web-based tool for nonnegative matrix factorization in biology. Nucleic Acids Research, 2008, 36, W523-W528.	6.5	31
49	Improving Search Engines Performance on Multithreading Processors. Lecture Notes in Computer Science, 2008, , 201-213.	1.0	5
50	A parallel cloth simulator using multilevel algorithms. , 2002, , .		1
51	Vectorization of multigrid codes using SIMD ISA extensions. , 0, , .		4
52	Beowulf performance in CFD multigrid applications. , 0, , .		2