Danny Z Chen

List of Publications by Year
in descending order

127	2,304	331259	315357
papers	citations	21	38
		h-index	g-index

131	131	131	2550
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Suggestive Annotation: A Deep Active Learning Framework for Biomedical Image Segmentation. Lecture Notes in Computer Science, 2017, , 399-407.	1.0	245
2	Notch-Dependent Repression of miR-155 in the Bone Marrow Niche Regulates Hematopoiesis in an NF-Î°B-Dependent Manner. Cell Stem Cell, 2014, 15, 51-65.	5.2	161
3	A Hierarchical Graph Network for 3D Object Detection on Point Clouds. , 2020, , .		85
4	CNS-Native Myeloid Cells Drive Immune Suppression in the Brain Metastatic Niche through Cxcl10. Cell, 2020, 183, 1234-1248.e25.	13.5	79
5	Three-dimensional visualization and a deep-learning model reveal complex fungal parasite networks in behaviorally manipulated ants. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12590-12595.	3.3	65
6	A Deep Learning Approach for Colonoscopy Pathology WSI Analysis: Accurate Segmentation and Classification. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3700-3708.	3.9	64
7	A Deep Learning Approach for Blind Drift Calibration of Sensor Networks. IEEE Sensors Journal, 2017, 17, 4158-4171.	2.4	59
8	Label-free visualization and characterization of extracellular vesicles in breast cancer. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24012-24018.	3.3	58
9	Optimization approaches to volumetric modulated arc therapy planning. Medical Physics, 2015, 42, 1367-1377.	1.6	56
10	Algorithms on Minimizing the Maximum Sensor Movement for Barrier Coverage of a Linear Domain. Discrete and Computational Geometry, 2013, 50, 374-408.	0.4	52
11	Computing with ferroelectric FETs: Devices, models, systems, and applications. , 2018, , .		48
12	Correlation between fibrin network structure and mechanical properties: an experimental and computational analysis. Soft Matter, 2011, 7, 4983.	1.2	45
13	Coarse-to-Fine Stacked Fully Convolutional Nets for lymph node segmentation in ultrasound images. , 2016, , .		44
14	Interactive Few-Shot Learning: Limited Supervision, Better Medical Image Segmentation. IEEE Transactions on Medical Imaging, 2021, 40, 2575-2588.	5.4	44
15	Hardware Trojan Detection in Third-Party Digital Intellectual Property Cores by Multilevel Feature Analysis. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 1370-1383.	1.9	42
16	Design and optimization of FeFET-based crossbars for binary convolution neural networks. , 2018, , .		39
17	Decoding Calcium Signaling Dynamics during Drosophila Wing Disc Development. Biophysical Journal, 2019, 116, 725-740.	0.2	39
18	SSR-VFD: Spatial Super-Resolution for Vector Field Data Analysis and Visualization. , 2020, , .		38

#	ARTICLE	IF	CITATIONS
19	Solving the all-pair shortest path query problem on interval and circular-arc graphs. Networks, 1998, 31, 249-258.	1.6	31
20	Flow Field Reduction Via Reconstructing Vector Data From 3-D Streamlines Using Deep Learning. IEEE Computer Graphics and Applications, 2019, 39, 54-67.	1.0	29
21	Discriminative Cervical Lesion Detection in Colposcopic Images With Global Class Activation and Local Bin Excitation. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 1411-1421.	3.9	28
22	SPACE-EFFICIENT ALGORITHMS FOR APPROXIMATING POLYGONAL CURVES IN TWO-DIMENSIONAL SPACE. International Journal of Computational Geometry and Applications, 2003, 13, 95-111.	0.3	27
23	Determining an Optimal Penetration Among Weighted Regions in Two and Three Dimensions. Journal of Combinatorial Optimization, 2001, 5, 59-79.	0.8	25
24	An Annotation Sparsification Strategy for 3D Medical Image Segmentation via Representative Selection and Self-Training. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 6925-6932.	3.6	24
25	Matroid and Knapsack Center Problems. Algorithmica, 2016, 75, 27-52.	1.0	23
26	A General Framework for Hardware Trojan Detection in Digital Circuits by Statistical Learning Algorithms. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2017, 36, 1633-1646.	1.9	23
27	Cascaded SE-ResUnet for segmentation of thoracic organs at risk. Neurocomputing, 2021, 453, 357-368.	3.5	23
28	Developing algorithms and software for geometric path planning problems. ACM Computing Surveys, 1996, 28, 18.	16.1	23
29	Automated tracking and analysis of ant trajectories shows variation in forager exploration. Scientific Reports, 2019, 9, 13246.	1.6	22
30	KerNet: A Novel Deep Learning Approach for Keratoconus and Sub-Clinical Keratoconus Detection Based on Raw Data of the Pentacam HR System. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3898-3910.	3.9	22
31	STNet: An End-to-End Generative Framework for Synthesizing Spatiotemporal Super-Resolution Volumes. IEEE Transactions on Visualization and Computer Graphics, 2022, 28, 270-280.	2.9	22
32	Kinetic Transition Networks for the Thomson Problem and Smale's Seventh Problem. Physical Review Letters, 2016, 117, 028301.	2.9	21
33	Power and Area Efficient FPGA Building Blocks Based on Ferroelectric FETs. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 1780-1793.	3.5	21
34	Communication Lower Bound in Convolution Accelerators. , 2020, , .		21
35	Efficient Algorithms and Implementations for Optimizing the Sum of Linear Fractional Functions, with Applications. Journal of Combinatorial Optimization, 2005, 9, 69-90.	0.8	19
36	Data-Driven Deep Supervision for Medical Image Segmentation. IEEE Transactions on Medical Imaging, 2022, 41, 1560-1574.	5.4	19

#	Article	IF	Citations
37	CC-NET: Image Complexity Guided Network Compression for Biomedical Image Segmentation. , 2019, , .		18
38	FeMAT: Exploring In-Memory Processing in Multifunctional FeFET-Based Memory Array. , 2019, , .		18
39	An irregular metal trace inpainting network for x‑ray CT metal artifact reduction. Medical Physics, 2020, 47, 4087-4100.	1.6	18
40	A Deep Learning Approach for Detecting Colorectal Cancer via Raman Spectra. BME Frontiers, 2022, 2022, .	2.2	18
41	Optimal Point Movement for Covering Circular Regions. Algorithmica, 2015, 72, 379-399.	1.0	17
42	Online scheduling of moldable parallel tasks. Journal of Scheduling, 2018, 21, 647-654.	1.3	17
43	Cartilage Segmentation in High-Resolution 3D Micro-CT Images via Uncertainty-Guided Self-training with Very Sparse Annotation. Lecture Notes in Computer Science, 2020, 12261, 802-812.	1.0	17
44	GENERALIZED GEOMETRIC APPROACHES FOR LEAF SEQUENCING PROBLEMS IN RADIATION THERAPY. International Journal of Computational Geometry and Applications, 2006, 16, 175-204.	0.3	16
45	moDNN: Memory optimal DNN training on GPUs. , 2018, , .		16
46	Towards Interpretable Arrhythmia Classification With Human-Machine Collaborative Knowledge Representation. IEEE Transactions on Biomedical Engineering, 2021, 68, 2098-2109.	2.5	16
47	A Cross-Domain Metal Trace Restoring Network for Reducing X-Ray CT Metal Artifacts. IEEE Transactions on Medical Imaging, 2020, 39, 3831-3842.	5.4	16
48	Reconstructing Unsteady Flow Data From Representative Streamlines via Diffusion and Deep-Learning-Based Denoising. IEEE Computer Graphics and Applications, 2021, 41, 111-121.	1.0	16
49	TGSA: protein‑protein association-based twin graph neural networks for drug response prediction with similarity augmentation. Bioinformatics, 2022, 38, 461-468.	1.8	16
50	Computing Optimal Beams in Two and Three Dimensions. Journal of Combinatorial Optimization, 2003, 7, 111-136.	0.8	14
51	Multi-Modal Fusion Learning For Cervical Dysplasia Diagnosis. , 2019, , .		14
52	IMIIN: An inter-modality information interaction network for 3D multi-modal breast tumor segmentation. Computerized Medical Imaging and Graphics, 2022, 95, 102021.	3.5	14
53	ON GEOMETRIC PATH QUERY PROBLEMS. International Journal of Computational Geometry and Applications, 2001, 11, 617-645.	0.3	13
54	GEOMETRIC ALGORITHMS FOR STATIC LEAF SEQUENCING PROBLEMS IN RADIATION THERAPY. International Journal of Computational Geometry and Applications, 2004, 14, 311-339.	0.3	13

#	ARTICLE	IF	CITATIONS
55	IMAGE SEGMENTATION WITH ASTEROIDALITY/TUBULARITY AND SMOOTHNESS CONSTRAINTS. International Journal of Computational Geometry and Applications, 2002, 12, 413-428.	0.3	12
56	Representing a Functional Curve by Curves with Fewer Peaks. Discrete and Computational Geometry, 2011, 46, 334-360.	0.4	12
57	Efficient Algorithms for k-Terminal Cuts on Planar Graphs. Algorithmica, 2004, 38, 299-316.	1.0	11
58	Coupled Path Planning, Region Optimization, andÂApplications in Intensity-modulated Radiation Therapy. Algorithmica, 2011, 60, 152-174.	1.0	11
59	Swallow: A Versatile Accelerator for Sparse Neural Networks. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 4881-4893.	1.9	11
60	Approximating Points by a Piecewise Linear Function. Algorithmica, 2013, 66, 682-713.	1.0	10
61	New Algorithms for Facility Location Problems on the Real Line. Algorithmica, 2014, 69, 370-383.	1.0	10
62	Multi-view Learning with Feature Level Fusion for Cervical Dysplasia Diagnosis. Lecture Notes in Computer Science, 2019, , 329-338.	1.0	10
63	An FPGA Solution for Radiation Dose Calculation. , 2006, , .		9
64	MINIMUM AREA CONVEX PACKING OF TWO CONVEX POLYGONS. International Journal of Computational Geometry and Applications, 2006, 16, 41-74.	0.3	9
65	SSN: A Stair-Shape Network for Real-Time Polyp Segmentation in Colonoscopy Images. , 2020, , .		9
66	Long Live TIME: Improving Lifetime and Security for NVM-Based Training-in-Memory Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 4707-4720.	1.9	9
67	Single Cells Exhibit Differing Behavioral Phases during Early Stages of Pseudomonas aeruginosa Swarming. Journal of Bacteriology, 2019, 201, .	1.0	8
68	TOPOLOGICAL PEELING AND APPLICATIONS. International Journal of Computational Geometry and Applications, 2003, 13, 135-172.	0.3	7
69	Rescuing memristor-based computing with non-linear resistance levels. , 2018, , .		7
70	Dadu-P: A Scalable Accelerator for Robot Motion Planning in a Dynamic Environment. , 2018, , .		7
71	Cascade Decoder: A Universal Decoding Method For Biomedical Image Segmentation. , 2019, , .		7
72	moDNN: Memory Optimal Deep Neural Network Training on Graphics Processing Units. IEEE Transactions on Parallel and Distributed Systems, 2019, 30, 646-661.	4.0	7

#	Article	IF	Citations
73	VTG-Net: A CNN Based Vessel Topology Graph Network for Retinal Artery/Vein Classification. Frontiers in Medicine, 2021, 8, 750396.	1.2	7
74	H-EMD: A Hierarchical Earth Mover's Distance Method for Instance Segmentation. IEEE Transactions on Medical Imaging, 2022, 41, 2582-2597.	5.4	7
75	An Automated Approach for Fibrin Network Segmentation and Structure Identification in 3D Confocal Microscopy Images. , 2014, , .		6
76	Single molecule sequencing-guided scaffolding and correction of draft assemblies. BMC Genomics, 2017, 18, 879.	1.2	6
77	Accelerating DNN-based 3D point cloud processing for mobile computing. Science China Information Sciences, 2019, 62, 1.	2.7	6
78	Scalar2Vec: Translating Scalar Fields to Vector Fields via Deep Learning. , 2022, , .		6
79	A dysmorphic mouse model reveals developmental interactions of chondrocranium and dermatocranium. ELife, 0, 11, .	2.8	6
80	ON CONNECTING RED AND BLUE RECTILINEAR POLYGONAL OBSTACLES WITH NONINTERSECTING MONOTONE RECTILINEAR PATHS. International Journal of Computational Geometry and Applications, 2001, 11, 373-400.	0.3	5
81	Segmentation, reconstruction, and analysis of blood thrombi in 2-photon microscopy images. , 2009, , .		5
82	GPU acceleration of Data Assembly in Finite Element Methods and its energy implications. , 2013, , .		5
83	Two-Point L1 Shortest Path Queries in the Plane. , 2014, , .		5
84	Computing the Visibility Polygon of an Island in a Polygonal Domain. Algorithmica, 2017, 77, 40-64.	1.0	5
85	Finding the Convex Hull of Discs in Parallel. International Journal of Computational Geometry and Applications, 1998, 08, 305-319.	0.3	4
86	EFFICIENT APPROXIMATION ALGORITHMS FOR PAIRWISE DATA CLUSTERING AND APPLICATIONS. International Journal of Computational Geometry and Applications, 2004, 14, 85-104.	0.3	4
87	Memory-efficient volume ray tracing on GPU for radiotherapy. , 2011, , .		4
88	FREE-FORM SURFACE PARTITION IN 3-D. International Journal of Computational Geometry and Applications, 2011, 21, 609-634.	0.3	4
89	Iris recognition based on human-interpretable features. , 2015, , .		4
90	A new registration approach for dynamic analysis of calcium signals in organs. , 2018, 2018, 934-937.		4

#	Article	IF	Citations
91	Computing $$L_1$$ Shortest Paths Among Polygonal Obstacles in the Plane. Algorithmica, 2019, 81, 2430-2483.	1.0	4
92	New algorithms for online rectangle filling withÂk-lookahead. Journal of Combinatorial Optimization, 2011, 21, 67-82.	0.8	3
93	Shape Rectangularization Problems inÂIntensity-Modulated Radiation Therapy. Algorithmica, 2011, 60, 421-450.	1.0	3
94	A New Algorithm for a Field Splitting Problem in Intensity-Modulated Radiation Therapy. Algorithmica, 2011, 61, 656-673.	1.0	3
95	Segmentation and tracking of Pseudomonas aeruginosa for cell dynamics analysis in time-lapse images. , 2016, , .		3
96	Inversion detection using PacBio long reads. , 2017, , .		3
97	Predicting Local Inversions Using Rectangle Clustering and Representative Rectangle Prediction. , 2018, , .		3
98	Long Live TIME: Improving Lifetime for Training-In-Memory Engines by Structured Gradient Sparsification. , 2018, , .		3
99	Biomedical Image Segmentation Using Fully Convolutional Networks on TrueNorth. , 2018, , .		3
100	Thread: Towards fine-grained precision reconfiguration in variable-precision neural network accelerator. IEICE Electronics Express, 2019, 16, 20190145-20190145.	0.3	3
101	ChroNet: A multi-task learning based approach for prediction of multiple chronic diseases. Multimedia Tools and Applications, 0, , 1.	2.6	3
102	HMCKRAutoEncoder: An Interpretable Deep Learning Framework for Time Series Analysis. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 99-111.	3.2	3
103	CMC-Net: 3D calf muscle compartment segmentation with sparse annotation. Medical Image Analysis, 2022, 79, 102460.	7.0	3
104	A Corresponding Region Fusion Framework for Multi-modal Cervical Lesion Detection. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2024, , 1-1.	1.9	3
105	Determining Weak Visibility of a Polygon from an Edge in Parallel. International Journal of Computational Geometry and Applications, 1998, 08, 277-304.	0.3	2
106	OPTIMAL POLYGON COVER PROBLEMS AND APPLICATIONS. International Journal of Computational Geometry and Applications, 2002, 12, 309-338.	0.3	2
107	MOUNTAIN REDUCTION, BLOCK MATCHING, AND APPLICATIONS IN INTENSITY-MODULATED RADIATION THERAPY. International Journal of Computational Geometry and Applications, 2008, 18, 63-106.	0.3	2
108	FINDING MANY OPTIMAL PATHS WITHOUT GROWING ANY OPTIMAL PATH TREES. International Journal of Computational Geometry and Applications, 2010, 20, 449-469.	0.3	2

#	Article	IF	Citations
109	Packing cubes into a cube is NP-complete in the strong sense. Journal of Combinatorial Optimization, 2015, 29, 197-215.	0.8	2
110	A seeding-searching-ensemble method for gland segmentation in H&E-stained images. BMC Medical Informatics and Decision Making, 2016, 16, 80.	1.5	2
111	Visual Relationship Detection With A Deep Convolutional Relationship Network. , 2020, , .		2
112	Search-free Accelerator for Sparse Convolutional Neural Networks. , 2020, , .		2
113	Search-Free Inference Acceleration for Sparse Convolutional Neural Networks. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 2156-2169.	1.9	2
114	VNet: a versatile network to train real-time semantic segmentation models on a single GPU. Science China Information Sciences, 2022, 65, 1.	2.7	2
115	PARALLEL ALGORITHMS FOR LONGEST INCREASING CHAINS IN THE PLANE AND RELATED PROBLEMS. Parallel Processing Letters, 1999, 09, 511-520.	0.4	1
116	Combined experimental and simulation study of blood clot formation. , 2009, , .		1
117	PROCESSING AN OFFLINE INSERTION-QUERY SEQUENCE WITH APPLICATIONS. International Journal of Foundations of Computer Science, 2011, 22, 1439-1456.	0.8	1
118	FITTING A STEP FUNCTION TO A POINT SET WITH OUTLIERS BASED ON SIMPLICIAL THICKNESS DATA STRUCTURES. International Journal of Computational Geometry and Applications, 2012, 22, 215-241.	0.3	1
119	LOCATING AN OBNOXIOUS LINE AMONG PLANAR OBJECTS. International Journal of Computational Geometry and Applications, 2012, 22, 391-405.	0.3	1
120	Flattening topologically spherical surface. Journal of Combinatorial Optimization, 2012, 23, 309-321.	0.8	1
121	62.4L: <i>Late€News Paper</i>: Light Emitting Memory: A Modular LED Panel with 10K True Color Frame Rate for 3D Display Applications. Digest of Technical Papers SID International Symposium, 2014, 45, 918-921.	0.1	1
122	A two-layer structure prediction framework for microscopy cell detection. Computerized Medical Imaging and Graphics, 2015, 41, 29-36.	3.5	1
123	Guest Editors’ Forward. Algorithmica, 2009, 53, 155-156.	1.0	0
124	A multi-FPGA accelerator for radiation dose calculation in cancer treatment. , 2009, , .		0
125	The topology aware file distribution problem. Journal of Combinatorial Optimization, 2013, 26, 621-635.	0.8	0
126	Outlier Respecting Points Approximation. Algorithmica, 2014, 69, 410-430.	1.0	0

#	Article	IF	Citations
127	Single molecule sequencing-guided scaffolding and correction of draft assemblies. , 2016, , .		0