

# Zheru Chi

## List of Publications by Year in descending order

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167  
papers

2,853  
citations

196777

29  
h-index

263392

45  
g-index

172  
all docs

172  
docs citations

172  
times ranked

2362  
citing authors

#	ARTICLE	IF	CITATIONS
1	Iterative brain tumor retrieval for MR images based on user's intention model. Pattern Recognition, 2022, 127, 108650.	5.1	5
2	Single-channel EEG based insomnia detection with domain adaptation. Computers in Biology and Medicine, 2021, 139, 104989.	3.9	9
3	A Residual Based Attention Model for EEG Based Sleep Staging. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 2833-2843.	3.9	92
4	Intelligent Evaluation of Strabismus in Videos Based on an Automated Cover Test. Applied Sciences (Switzerland), 2019, 9, 731.	1.3	12
5	Skeleton-Based Action Recognition With Key-Segment Descriptor and Temporal Step Matrix Model. IEEE Access, 2019, 7, 169782-169795.	2.6	6
6	A CNN Model for Human Parsing Based on Capacity Optimization. Applied Sciences (Switzerland), 2019, 9, 1330.	1.3	4
7	Improved DenseNet with Convolutional Attention Module for Brain Tumor Segmentation. , 2019, , .		2
8	Eye-tracking based relevance feedback for iterative face image retrieval. , 2019, , .		0
9	Eye-tracking-aided digital system for strabismus diagnosis. Healthcare Technology Letters, 2018, 5, 1-6.	1.9	31
10	Facial Expression Recognition in Video with Multiple Feature Fusion. IEEE Transactions on Affective Computing, 2018, 9, 38-50.	5.7	162
11	A Novel Structure of Convolutional Layers with a Higher Performance-Complexity Ratio for Semantic Segmentation. , 2018, , .		0
12	Strabismus Recognition Using Eye-Tracking Data and Convolutional Neural Networks. Journal of Healthcare Engineering, 2018, 2018, 1-9.	1.1	36
13	Content-based image retrieval based on eye-tracking. , 2018, , .		1
14	Smile detection in the wild with deep convolutional neural networks. Machine Vision and Applications, 2017, 28, 173-183.	1.7	42
15	A new framework with multiple tasks for detecting and locating pain events in video. Computer Vision and Image Understanding, 2017, 155, 113-123.	3.0	8
16	Eye tracking data guided feature selection for image classification. Pattern Recognition, 2017, 63, 56-70.	5.1	36
17	A Fully-Convolutional Framework for Semantic Segmentation. , 2017, , .		4
18	Facial expression recognition using depth map estimation of Light Field Camera. , 2016, , .		9

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19	Smile detection in the wild with hierarchical visual feature. , 2016, , .		8
20	A combined convolutional neural network and potential region-of-interest model for saliency detection. , 2015, , .		0
21	Eye-Tracking Aided Digital System for Strabismus Diagnosis. , 2015, , .		9
22	A new approach for pain event detection in video. , 2015, , .		1
23	Learning to Detect Saliency with Deep Structure. , 2015, , .		4
24	Dynamic texture and geometry features for facial expression recognition in video. , 2015, , .		11
25	Convolutional Neural Networks for Branch Retinal Vein Occlusion recognition?. , 2015, , .		8
26	Recognition of Facial Action Units with Action Unit Classifiers and an Association Network. Lecture Notes in Computer Science, 2015, , 672-683.	1.0	0
27	Hierarchical local binary pattern for branch retinal vein occlusion recognition with fluorescein angiography images. Electronics Letters, 2014, 50, 1902-1904.	0.5	6
28	A Hybrid Holistic/Semantic Approach for Scene Classification. , 2014, , .		3
29	Emotion Recognition in the Wild with Feature Fusion and Multiple Kernel Learning. , 2014, , .		76
30	Relative Saliency Model over Multiple Images with an Application to Yarn Surface Evaluation. IEEE Transactions on Cybernetics, 2014, 44, 1249-1258.	6.2	10
31	EAGLE: A novel descriptor for identifying plant species using leaf lamina vascular features. , 2014, , .		23
32	Learning realistic facial expressions from web images. Pattern Recognition, 2013, 46, 2144-2155.	5.1	31
33	Multi-instance multi-label image classification: A neural approach. Neurocomputing, 2013, 99, 298-306.	3.5	51
34	Realistic Human Action Recognition With Multimodal Feature Selection and Fusion. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2013, 43, 875-885.	5.9	67
35	A MUTATION PARTICLE SWARM OPTIMIZATION ALGORITHM FOR MULTILAYER PERCEPTRON TRAINING WITH APPLICATIONS. International Journal of Information Acquisition, 2013, 09, 1350003.	0.2	0
36	Eye typing of Chinese characters. , 2012, , .		2

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37	A 3D gaze estimation method based on facial feature tracking. , 2012, , .		1
38	An efficacious medical video segmentation approach with a moving camera. , 2012, , .		1
39	Combining Holistic and Object-Based Approaches for Scene Classification. , 2012, , .		2
40	How Many Frames Does Facial Expression Recognition Require?. , 2012, , .		1
41	An Adaptive Recognition Model for Image Annotation. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2012, 42, 1120-1127.	3.3	10
42	Video-based biometric identification using eye tracking technique. , 2012, , .		30
43	Intelligent characterization and evaluation of yarn surface appearance using saliency map analysis, wavelet transform and fuzzy ARTMAP neural network. Expert Systems With Applications, 2012, 39, 4201-4212.	4.4	33
44	Salient object detection using content-sensitive hypergraph representation and partitioning. Pattern Recognition, 2012, 45, 3886-3901.	5.1	29
45	Leaf Image Classification with Shape Context and SIFT Descriptors. , 2011, , .		26
46	A Time Delay Neural Network model for simulating eye gaze data. Journal of Experimental and Theoretical Artificial Intelligence, 2011, 23, 111-126.	1.8	6
47	Recognition of attentive objects with a concept association network for image annotation. Pattern Recognition, 2010, 43, 3539-3547.	5.1	10
48	Refining a region based attention model using eye tracking data. , 2010, , .		10
49	An improved algorithm for segmenting and recognizing connected handwritten characters. , 2010, , .		3
50	A neural network model with adaptive structure for image annotation. , 2010, , .		3
51	Salient-SIFT for Image Retrieval. Lecture Notes in Computer Science, 2010, , 62-71.	1.0	6
52	Eye movement as an interaction mechanism for relevance feedback in a content-based image retrieval system. , 2010, , .		19
53	Content-based image retrieval using a combination of visual features and eye tracking data. , 2010, , .		15
54	A Novel Shape-Based Image Classification Method by Featuring Radius Histogram of Dilating Discs Filled into Regular and Irregular Shapes. Lecture Notes in Computer Science, 2010, , 239-246.	1.0	0

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55	Adaptive System of Heterogeneous Multi-agent Investors in an Artificial Evolutionary Double Auction Market. Lecture Notes in Computer Science, 2010, , 715-722.	1.0	1
56	Image pre-classification based on saliency map for image retrieval. , 2009, , .		4
57	Tree structures with attentive objects for image classification using a neural network. , 2009, , .		1
58	Eye movement data modeling using a genetic algorithm. , 2009, , .		1
59	An efficient algorithm for attention-driven image interpretation from segments. Pattern Recognition, 2009, 42, 126-140.	5.1	14
60	Speckle suppression and contrast enhancement in reconstruction of freehand 3D ultrasound images using an adaptive distance-weighted method. Applied Acoustics, 2009, 70, 21-30.	1.7	33
61	Chinese Sentence Similarity Measure Based on Words and Structure Information. , 2008, , .		1
62	IMPROVEMENT OF IMAGE CLASSIFICATION USING WAVELET COEFFICIENTS WITH STRUCTURED-BASED NEURAL NETWORK. International Journal of Neural Systems, 2008, 18, 195-205.	3.2	44
63	Multi-agent Modeling of Stock Market with Multiple Trading Strategies. , 2008, , .		0
64	Pre-classification Module for an All-Season Image Retrieval System. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	3
65	Image Recovery from Broken Image Streams. , 2007, , .		2
66	Chunk Segmentation of Chinese Sentences Using a Combined Statistical and Rule-based Approach (CSRA). International Journal of Computer Processing of Languages, 2007, 20, 197-218.	0.3	0
67	Pattern-Oriented Agent-Based Modeling for Financial Market Simulation. Lecture Notes in Computer Science, 2007, , 626-631.	1.0	2
68	Face Recognition Based on Binary Template Matching. , 2007, , 1131-1139.		10
69	Annotating Image Regions Using Spatial Context. , 2006, , .		8
70	A robust eye detection method using combined binary edge and intensity information. Pattern Recognition, 2006, 39, 1110-1125.	5.1	65
71	Attention-driven image interpretation with application to image retrieval. Pattern Recognition, 2006, 39, 1604-1621.	5.1	70
72	Geometric Analysis of Particle Motion in a Vector Image Field. Journal of Mathematical Imaging and Vision, 2006, 26, 301-307.	0.8	2

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73	Leaf Vein Extraction Using Independent Component Analysis. , 2006, , .		41
74	Improvement of Image Classification with Wavelet and Independent Component Analysis (ICA) based on a Structured Neural Network. , 2006, , .		4
75	Wavelet-based Illumination Compensation for Face Recognition using Eigenface Method. , 2006, , .		12
76	An operation-based exchange mechanism in heterogeneous CAD collaboration. , 2005, , .		6
77	A new partitioning neural network model for recursively finding arbitrary roots of higher order arbitrary polynomials. Applied Mathematics and Computation, 2005, 162, 1183-1200.	1.4	22
78	A case study for constrained learning neural root finders. Applied Mathematics and Computation, 2005, 165, 699-718.	1.4	24
79	Zeroing Polynomials Using Modified Constrained Neural Network Approach. IEEE Transactions on Neural Networks, 2005, 16, 721-732.	4.8	92
80	DOCUMENT IMAGE BINARIZATION WITH FEEDBACK FOR IMPROVING CHARACTER SEGMENTATION. International Journal of Image and Graphics, 2005, 05, 281-309.	1.2	0
81	Genetic evolution processing of data structures for image classification. IEEE Transactions on Knowledge and Data Engineering, 2005, 17, 216-231.	4.0	25
82	Locating Human Eyes Using Edge and Intensity Information. Lecture Notes in Computer Science, 2005, , 492-501.	1.0	3
83	Scene Classification Using Adaptive Processing of Tree Representation of Rectangular-Shape Partition of Images. Lecture Notes in Computer Science, 2005, , 274-280.	1.0	0
84	An Operation Semantics Exchange Model for Distributed Design. , 2005, , 221-225.		0
85	Image Coding Quality Assessment Using Fuzzy Integrals With a Three-Component Image Model. IEEE Transactions on Fuzzy Systems, 2004, 12, 99-106.	6.5	39
86	COMPUTATIONAL VISUAL SENSITIVITY MODELS â€™ A REVIEW. International Journal of Information Acquisition, 2004, 01, 357-369.	0.2	0
87	A Neural Root Finder of Polynomials Based on Root Moments. Neural Computation, 2004, 16, 1721-1762.	1.3	110
88	Tracer Kinetic Modeling of $^{11}\text{C}$ -Acetate Applied in the Liver With Positron Emission Tomography. IEEE Transactions on Medical Imaging, 2004, 23, 426-432.	5.4	35
89	Efficient Learning in Adaptive Processing of Data Structures. Neural Processing Letters, 2003, 17, 175-190.	2.0	20
90	Hierarchical content classification and script determination for automatic document image processing. Pattern Recognition, 2003, 36, 2483-2500.	5.1	13

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91	Dilation method for finding close roots of polynomials based on constrained learning neural networks. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 309, 443-451.	0.9	52
92	Two-stage segmentation of unconstrained handwritten Chinese characters. Pattern Recognition, 2003, 36, 145-156.	5.1	52
93	Document image recognition based on template matching of component block projections. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2003, 25, 1188-1192.	9.7	47
94	CONTENT-BASED IMAGE RETRIEVAL WITH RELEVANCE FEEDBACK USING ADAPTIVE PROCESSING OF TREE-STRUCTURE IMAGE REPRESENTATION. International Journal of Image and Graphics, 2003, 03, 119-143.	1.2	7
95	An improved algorithm for learning long-term dependency problems in adaptive processing of data structures. IEEE Transactions on Neural Networks, 2003, 14, 781-793.	4.8	34
96	Plant species recognition based on bark patterns using novel Gabor filter banks. , 2003, , .		12
97	Region-based binary tree representation for image classification. , 2003, , .		2
98	Automatic segmentation of Chinese chunks using a neural network. , 2003, , .		3
99	Data Management for Live Plant Identification. Signals and Communication Technology, 2003, , 432-457.	0.4	7
100	Segmentation and recognition of on-line Pitman shorthand outlines using neural networks. , 2002, , .		4
101	Script determination of mixed Chinese/English document images using Kolmogorov complexity measure. , 2002, , .		0
102	Edge detection from edge knots in live plant image processing. , 2002, , .		0
103	A fuzzy image metric with application to fractal coding. IEEE Transactions on Image Processing, 2002, 11, 636-643.	6.0	29
104	Extraction and optimization of B-spline PBD templates for recognition of connected handwritten digit strings. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2002, 24, 132-139.	9.7	17
105	Image Thresholding by Maximizing the Index of Nonfuzziness of the 2-D Grayscale Histogram. Computer Vision and Image Understanding, 2002, 85, 100-116.	3.0	37
106	ART2 Neural Network for Surface EMG Decomposition. Neural Computing and Applications, 2001, 10, 29-38.	3.2	19
107	Document image template matching based on component block list. Pattern Recognition Letters, 2001, 22, 1033-1042.	2.6	19
108	Adaptive Processing of Tree-Structure Image Representation. Lecture Notes in Computer Science, 2001, , 989-995.	1.0	10

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109	Document image matching based on component blocks. , 2000, , .		4
110	Hierarchical genetic image segmentation algorithm based on histogram dichotomy. Electronics Letters, 2000, 36, 872.	0.5	5
111	A SEMI-PARAMETRIC HYBRID NEURAL MODEL FOR NONLINEAR BLIND SIGNAL SEPARATION. International Journal of Neural Systems, 2000, 10, 79-93.	3.2	3
112	Leaf Image Retrieval with Shape Features. Lecture Notes in Computer Science, 2000, , 477-487.	1.0	57
113	Ranking Segmentation Paths Using Fuzzified Decision Rules. Studies in Fuzziness and Soft Computing, 2000, , 287-307.	0.6	1
114	Analytic reconstruction of Compton scattering tomography. Journal of Applied Physics, 1999, 86, 1693-1698.	1.1	15
115	A background-thinning-based approach for separating and recognizing connected handwritten digit strings. Pattern Recognition, 1999, 32, 921-933.	5.1	58
116	Block-Constrained Fractal Coding Scheme for Image Retrieval. Lecture Notes in Computer Science, 1999, , 675-682.	1.0	1
117	A New Template Representation and Extraction Method for Connected Handwritten Digit Recognition. Series in Machine Perception and Artificial Intelligence, 1999, , 426-435.	0.1	1
118	An on-line adaptive neural network for speech recognition. International Journal of Speech Technology, 1998, 2, 241-248.	1.4	0
119	Neural network approach for Compton-scattering imaging. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 2297.	0.8	1
120	ID3-derived fuzzy rules and optimized defuzzification for handwritten numeral recognition. IEEE Transactions on Fuzzy Systems, 1996, 4, 24-31.	6.5	48
121	Handwritten digit recognition using combined ID3-derived fuzzy rules and Markov chains. Pattern Recognition, 1996, 29, 1821-1833.	5.1	12
122	Fuzzy Algorithms: With Applications to Image Processing and Pattern Recognition. Advances in Fuzzy Systems, 1996, , .	8.7	145
123	Handwritten numeral recognition using a small number of fuzzy rules with optimized defuzzification parameters. Neural Networks, 1995, 8, 821-827.	3.3	20
124	Handwritten numeral recognition using self-organizing maps and fuzzy rules. Pattern Recognition, 1995, 28, 59-66.	5.1	117
125	Image segmentation using fuzzy rules derived from K-means clusters. Journal of Electronic Imaging, 1995, 4, 199.	0.5	18
126	Separation of single- and double-touching handwritten numeral strings. Optical Engineering, 1995, 34, 1159.	0.5	26



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127	MLP classifiers: overtraining and solutions. , 0, , .		4
128	Multi-channel handwritten digit recognition using neural networks. , 0, , .		2
129	Image content classification using a block Kolmogorov complexity measure. , 0, , .		0
130	Electrocardiogram compression using modulus maxima of wavelet transform. , 0, , .		0
131	A background-thinning based algorithm for separating connected handwritten digit strings. , 0, , .		1
132	Approaching the post nonlinearity of blind mixtures by hybrid neural network. , 0, , .		0
133	Hidden Markov random field based approach for off-line handwritten Chinese character recognition. , 0, , .		8
134	A hierarchical distributed genetic algorithm for image segmentation. , 0, , .		7
135	HMMRF: a stochastic model for offline handwritten Chinese character recognition. , 0, , .		1
136	Solving linear simultaneous equations by constraining learning neural networks. , 0, , .		4
137	Neural networks with problem decomposition for finding real roots of polynomials. , 0, , .		14
138	Constraining learning linear neural networks for inverting of complex matrices. , 0, , .		2
139	Handwritten Chinese character segmentation using a two-stage approach. , 0, , .		13
140	Finding complex roots of polynomials by feedforward neural networks. , 0, , .		10
141	A fuzzy metric for image quality assessment. , 0, , .		6
142	Match between normalization schemes and feature sets for handwritten Chinese character recognition. , 0, , .		4
143	Image classification with adaptive processing of BSP image representation. , 0, , .		0
144	Structural representation and BPTS learning for shape classification. , 0, , .		0

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145	Robust learning in adaptive processing of data structures for tree representation based image classification. , 0, , .		0
146	Hierarchical content classification and script determination for automatic document image processing. , 0, , .		7
147	On the maximization of the crispness of 2D grayscale histogram for image thresholding. , 0, , .		1
148	Fuzzy integral for leaf image retrieval. , 0, , .		11
149	A fast 2D entropic thresholding method by wavelet decomposition. , 0, , .		2
150	Region-of-interest based flower images retrieval. , 0, , .		1
151	An algorithm for segmenting moving vehicles. , 0, , .		1
152	A hypersphere method for plant leaves classification. , 0, , .		10
153	Bark texture feature extraction based on statistical texture analysis. , 0, , .		19
154	Feature filtering in relevance feedback of image retrieval based on a statistical approach. , 0, , .		0
155	Comparison of image partition methods for adaptive image categorization based on structural image representation. , 0, , .		1
156	Texture image segmentation based on entropy theory. , 0, , .		2
157	Automatic generation of pen-and-ink drawings from photos. , 0, , .		2
158	Locatization of human eyes based on a series of binary images. , 0, , .		1
159	Split decision function using fuzzy integral. , 0, , .		1
160	B-spline over-complete wavelet based fractal signature analysis for texture image retrieval. , 0, , .		2
161	Image Retrieval Based on Sugeno Fuzzy Integral. , 0, , .		1
162	Motion detection and tracking based on level set algorithm. , 0, , .		3

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163	A computerized plant species recognition system. , 0, , .		12
164	Machine learning techniques for ontology-based leaf classification. , 0, , .		11
165	Bark classification by combining grayscale and binary texture features. , 0, , .		6
166	Extraction of face image edges with application to expression analysis. , 0, , .		0
167	Improvement of Image Classification with Wavelet and Independent Component Analysis (ICA) based on a Structured Neural Network. , 0, , .		0