Michael Alexander Riegler

List of Publications by Year
in descending order

134 papers	4,403 citations	236925 25 h-index	197818 49 g-index
137 all docs	137 docs citations	137 times ranked	2234 citing authors

#	Article	IF	Citations
1	ResUNet++: An Advanced Architecture for Medical Image Segmentation. , 2019, , .		434
2	Kvasir-SEG: A Segmented Polyp Dataset. Lecture Notes in Computer Science, 2020, , 451-462.	1.3	397
3	DoubleU-Net: A Deep Convolutional Neural Network for Medical Image Segmentation. , 2020, , .		286
4	KVASIR. , 2017, , .		272
5	Mental health monitoring with multimodal sensing and machine learning: A survey. Pervasive and Mobile Computing, 2018, 51, 1-26.	3.3	215
6	HyperKvasir, a comprehensive multi-class image and video dataset for gastrointestinal endoscopy. Scientific Data, 2020, 7, 283.	5.3	206
7	Real-Time Polyp Detection, Localization and Segmentation in Colonoscopy Using Deep Learning. IEEE Access, 2021, 9, 40496-40510.	4.2	160
8	On evaluation metrics for medical applications of artificial intelligence. Scientific Reports, 2022, 12, 5979.	3.3	141
9	A Comprehensive Study on Colorectal Polyp Segmentation With ResUNet++, Conditional Random Field and Test-Time Augmentation. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 2029-2040.	6.3	137
10	Tiling in Interactive Panoramic Video: Approaches and Evaluation. IEEE Transactions on Multimedia, 2016, 18, 1819-1831.	7.2	132
11	MSRF-Net: A Multi-Scale Residual Fusion Network for Biomedical Image Segmentation. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 2252-2263.	6.3	118
12	Kvasir-Capsule, a video capsule endoscopy dataset. Scientific Data, 2021, 8, 142.	5.3	86
13	Natural disasters detection in social media and satellite imagery: a survey. Multimedia Tools and Applications, 2019, 78, 31267-31302.	3.9	76
14	[Invited papers] Comparing Approaches to Interactive Lifelog Search at the Lifelog Search Challenge (LSC2018). ITE Transactions on Media Technology and Applications, 2019, 7, 46-59.	0.5	71
15	FANet: A Feedback Attention Network for Improved Biomedical Image Segmentation. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 9375-9388.	11.3	67
16	ChaLearn Joint Contest on Multimedia Challenges Beyond Visual Analysis: An overview. , 2016, , .		57
17	Depresjon. , 2018, , .		54
18	Efficient disease detection in gastrointestinal videos â€" global features versus neural networks. Multimedia Tools and Applications, 2017, 76, 22493-22525.	3.9	52

#	Article	IF	Citations
19	An Extensive Study on Cross-Dataset Bias and Evaluation Metrics Interpretation for Machine Learning Applied to Gastrointestinal Tract Abnormality Classification. ACM Transactions on Computing for Healthcare, 2020, 1, 1-29.	5.0	43
20	Machine Learning-Based Analysis of Sperm Videos and Participant Data for Male Fertility Prediction. Scientific Reports, 2019, 9, 16770.	3.3	41
21	Comparative validation of multi-instance instrument segmentation in endoscopy: Results of the ROBUST-MIS 2019 challenge. Medical Image Analysis, 2021, 70, 101920.	11.6	41
22	Applying machine learning in motor activity time series of depressed bipolar and unipolar patients compared to healthy controls. PLoS ONE, 2020, 15, e0231995.	2.5	40
23	Automatic detection of passable roads after floods in remote sensed and social media data. Signal Processing: Image Communication, 2019, 74, 110-118.	3.2	38
24	Artificial intelligence in the fertility clinic: status, pitfalls and possibilities. Human Reproduction, 2021, 36, 2429-2442.	0.9	38
25	Impact of Image Resolution on Deep Learning Performance in Endoscopy Image Classification: An Experimental Study Using a Large Dataset of Endoscopic Images. Diagnostics, 2021, 11, 2183.	2.6	38
26	Nerthus. , 2017, , .		37
27	Multimedia and Medicine. , 2016, , .		35
28	Deep Learning and Hand-Crafted Feature Based Approaches for Polyp Detection in Medical Videos. , 2018, , .		35
29	Bleeding detection in wireless capsule endoscopy videos â€" Color versus texture features. Journal of Applied Clinical Medical Physics, 2019, 20, 141-154.	1.9	32
30	Top-down saliency detection driven by visual classification. Computer Vision and Image Understanding, 2018, 172, 67-76.	4.7	31
31	Methodology to develop machine learning algorithms to improve performance in gastrointestinal endoscopy. World Journal of Gastroenterology, 2018, 24, 5057-5062.	3.3	31
32	DeepFake electrocardiograms using generative adversarial networks are the beginning of the end for privacy issues in medicine. Scientific Reports, 2021, 11, 21896.	3.3	31
33	Human Activity Recognition from Multiple Sensors Data Using Multi-fusion Representations and CNNs. ACM Transactions on Multimedia Computing, Communications and Applications, 2020, 16, 1-19.	4.3	30
34	Social media and satellites. Multimedia Tools and Applications, 2019, 78, 2837-2875.	3.9	27
35	NanoNet: Real-Time Polyp Segmentation in Video Capsule Endoscopy and Colonoscopy. , 2021, , .		27
36	SinGAN-Seg: Synthetic training data generation for medical image segmentation. PLoS ONE, 2022, 17, e0267976.	2.5	27

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37	Kvasir-Instrument: Diagnostic and Therapeutic Tool Segmentation Dataset in Gastrointestinal Endoscopy. Lecture Notes in Computer Science, 2021, , 218-229.	1.3	26
38	Explaining deep neural networks for knowledge discovery in electrocardiogram analysis. Scientific Reports, 2021, 11, 10949.	3.3	26
39	EIR â€" Efficient computer aided diagnosis framework for gastrointestinal endoscopies. , 2016, , .		25
40	PMData. , 2020, , .		25
41	From Annotation to Computer-Aided Diagnosis. ACM Transactions on Multimedia Computing, Communications and Applications, 2017, 13, 1-26.	4.3	22
42	Motor Activity Based Classification of Depression in Unipolar and Bipolar Patients. , 2018, , .		22
43	Overview of ImageCLEF 2018: Challenges, Datasets and Evaluation. Lecture Notes in Computer Science, 2018, , 309-334.	1.3	21
44	Meta-learning with implicit gradients in a few-shot setting for medical image segmentation. Computers in Biology and Medicine, 2022, 143, 105227.	7.0	21
45	Detection and Classification of Bleeding Region in WCE Images using Color Feature. , 2017, , .		20
46	VISEM. , 2019, , .		20
47	ImageCLEF 2019: Multimedia Retrieval in Medicine, Lifelogging, Security and Nature. Lecture Notes in Computer Science, 2019, , 358-386.	1.3	20
48	Dissecting Deep Neural Networks for Better Medical Image Classification and Classification Understanding. , 2018, , .		19
49	User-adaptive models for activity and emotion recognition using deep transfer learning and data augmentation. User Modeling and User-Adapted Interaction, 2020, 30, 365-393.	3.8	19
50	A comprehensive analysis of classification methods in gastrointestinal endoscopy imaging. Medical Image Analysis, 2021, 70, 102007.	11.6	19
51	How 'How' Reflects What's What. , 2014, , .		18
52	Automatic Hyperparameter Optimization for Transfer Learning on Medical Image Datasets Using Bayesian Optimization. , 2019, , .		18
53	One-Dimensional Convolutional Neural Networks on Motor Activity Measurements in Detection of Depression. , 2019, , .		18
54	JORD. , 2017, , .		16

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55	GPU-Accelerated Real-Time Gastrointestinal Diseases Detection. , 2016, , .		15
56	Mimir. , 2018, , .		15
57	PSYKOSE: A Motor Activity Database of Patients with Schizophrenia. , 2020, , .		14
58	Visual Sentiment Analysis from Disaster Images in Social Media. Sensors, 2022, 22, 3628.	3.8	14
59	Deep learning and handcrafted feature based approaches for automatic detection of angiectasia. , 2018, , .		13
60	The EndoTect 2020 Challenge: Evaluation and Comparison of Classification, Segmentation and Inference Time for Endoscopy. Lecture Notes in Computer Science, 2021, , 263-274.	1.3	13
61	Building a Disclosed Lifelog Dataset. , 2017, , .		12
62	Computer aided disease detection system for gastrointestinal examinations. , 2016, , .		11
63	Tradeoffs Using Binary and Multiclass Neural Network Classification for Medical Multidisease Detection. , 2018, , .		11
64	Real-Time Detection of Events in Soccer Videos using 3D Convolutional Neural Networks. , 2020, , .		10
65	Expert driven semi-supervised elucidation tool for medical endoscopic videos. , 2015, , .		9
66	Multimodal Analysis of Image Search Intent. , 2017, , .		9
67	Multimodal analysis of user behavior and browsed content under different image search intents. International Journal of Multimedia Information Retrieval, 2018, 7, 29-41.	5.2	9
68	DeepSynthBody: the beginning of the end for data deficiency in medicine. , 2021, , .		9
69	A self-learning teacher-student framework for gastrointestinal image classification. , 2021, , .		9
70	Complexity and variability analyses of motor activity distinguish mood states in bipolar disorder. PLoS ONE, 2022, 17, e0262232.	2.5	9
71	Automated Event Detection and Classification in Soccer: The Potential of Using Multiple Modalities. Machine Learning and Knowledge Extraction, 2021, 3, 1030-1054.	5.0	9
72	Synthesizing a Talking Child Avatar to Train Interviewers Working with Maltreated Children. Big Data and Cognitive Computing, 2022, 6, 62.	4.7	9

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73	Crowdsourcing as self-fulfilling prophecy: Influence of discarding workers in subjective assessment tasks. , 2016, , .		8
74	A Holistic Multimedia System for Gastrointestinal Tract Disease Detection. , 2017, , .		8
75	Medical Multimedia Information Systems (MMIS). , 2017, , .		8
76	Efficient Live and On-Demand Tiled HEVC 360 VR Video Streaming. International Journal of Semantic Computing, 2019, 13, 367-391.	0.5	8
77	ACM Multimedia BioMedia 2019 Grand Challenge Overview. , 2019, , .		8
78	Efficient processing of videos in a multi-auditory environment using device lending of GPUs. , 2016, , .		7
79	Device lending in PCI express networks. , 2016, , .		7
80	Explorative hyperbolic-tree-based clustering tool for unsupervised knowledge discovery. , 2016, , .		7
81	Estimating Downlink Throughput from End-user Measurements in Mobile Broadband Networks. , 2019, , .		7
82	383 DEEP LEARNING FOR AUTOMATIC GENERATION OF ENDOSCOPY REPORTS. Gastrointestinal Endoscopy, 2019, 89, AB77.	1.0	7
83	Heart Rate Prediction from Head Movement during Virtual Reality Treatment for Social Anxiety. , 2019, , .		7
84	Large scale â€œspeedtestâ€•experimentation in Mobile Broadband Networks. Computer Networks, 2021, 184, 107629.	5.1	7
85	The same, only different: Contrasting mobile operator behavior from crowdsourced dataset. , 2017, , .		6
86	Comprehensible reasoning and automated reporting of medical examinations based on deep learning analysis. , 2018, , .		6
87	Multi-mode Systems for Resilient Security in Industry 4.0. Procedia Computer Science, 2021, 180, 301-307.	2.0	6
88	Using 3D Convolutional Neural Networks for Real-time Detection of Soccer Events. International Journal of Semantic Computing, 2021, 15, 161-187.	0.5	6
89	Exploring Deep Learning Methods for Real-Time Surgical Instrument Segmentation in Laparoscopy. , 2021, , .		6
90	File System Support for Privacy-Preserving Analysis and Forensics in Low-Bandwidth Edge Environments. Information (Switzerland), 2021, 12, 430.	2.9	6

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91	AI-Based Video Clipping of Soccer Events. Machine Learning and Knowledge Extraction, 2021, 3, 990-1008.	5.0	6
92	The JORD System. , 2017, , .		5
93	THREAT: A Large Annotated Corpus for Detection of Violent Threats. , 2019, , .		5
94	ID: 3523524 DATA AUGMENTATION USING GENERATIVE ADVERSARIAL NETWORKS FOR CREATING REALISTIC ARTIFICIAL COLON POLYP IMAGES: VALIDATION STUDY BY ENDOSCOPISTS. Gastrointestinal Endoscopy, 2021, 93, AB190.	1.0	5
95	Diagnosing Schizophrenia from Activity Records using Hidden Markov Model Parameters. , 2021, , .		5
96	Using Mr. MAPP for Lower Limb Phantom Pain Management. , 2019, , .		5
97	Challenges and Opportunities within Personal Life Archives. , 2018, , .		4
98	HINDSIGHT. , 2018, , .		4
99	Flexible device compositions and dynamic resource sharing in PCIe interconnected clusters using Device Lending. Cluster Computing, 2020, 23, 1211-1234.	5.0	4
100	Unraveling the Impact of Land Cover Changes on Climate Using Machine Learning and Explainable Artificial Intelligence. Big Data and Cognitive Computing, 2021, 5, 55.	4.7	4
101	Toadstool. , 2020, , .		4
102	PAANet: Progressive Alternating Attention for Automatic Medical Image Segmentation. , 2021, , .		4
103	Right inflight?. , 2016, , .		3
104	Heimdallr. , 2016, , .		3
105	Camera Synchronization for Panoramic Videos. , 2018, , 565-592.		3
106	Medical Multimedia Systems and Applications. , 2019, , .		3
107	HYPERAKTIV. , 2021, , .		3
108	OpenVQ. , 2016, , .		3

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109	Smart Lifelogging: Recognizing Human Activities using PHASOR. , 2017, , .		3
110	Predicting High Delays in Mobile Broadband Networks. IEEE Access, 2021, 9, 168999-169013.	4.2	3
111	Ãika: A Distributed Edge System for AI Inference. Big Data and Cognitive Computing, 2022, 6, 68.	4.7	3
112	ClusterTag. , 2017, , .		2
113	LireSolr. , 2017, , .		2
114	The Importance of Medical Multimedia. , 2018, , .		2
115	Mode Switching for Secure Web Applications â€" A Juice Shop CaseÂScenario. Communications in Computer and Information Science, 2021, , 3-8.	0.5	2
116	Opensea. , 2018, , .		1
117	A Genetic Attack Against Machine Learning Classifiers to Steal Biometric Actigraphy Profiles from Health Related Sensor Data. Journal of Medical Systems, 2020, 44, 187.	3.6	1
118	Fr615 IMPACT OF IMAGE RESOLUTION ON CONVOLUTIONAL NEURAL NETWORKS PERFORMANCE IN GASTROINTESTINAL ENDOSCOPY. Gastroenterology, 2021, 160, S-377.	1.3	1
119	Pyramidal Segmentation of Medical Images using Adversarial Training. , 2021, , .		1
120	Mobile Picture Guess: A Crowdsourced Serious Game for Simulating Human Perception. Lecture Notes in Computer Science, 2015, , 461-468.	1.3	1
121	Sharing and reproducibility in ACM SIGMM. ACM Multimedia, 2018, 10, 1-1.	0.1	1
122	Prediction of Cloud Fractional Cover Using Machine Learning. Big Data and Cognitive Computing, 2021, 5, 62.	4.7	1
123	Exploration of Different Time Series Models for Soccer Athlete Performance Prediction. , 0, , .		1
124	Gone. , 2014, , .		0
125	Die Schlussformel Â»bis der Esel auf die Leiter klettertÂ« im Kolophon der mittelalterlichen hebrÃ¤schen Handschriften in Aschkenas. Aschkenas, 2017, 108, .	0.0	0
126	A Web-Based Software for Training and Quality Assessment in the Image Analysis Workflow for Cardiac T1 Mapping MRI. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
127	Saga: An Open Source Platform for Training Machine Learning Models and Community-driven Sharing of Techniques. , 2019, , .		0
128	HTAD: A Home-Tasks Activities Dataset with Wrist-Accelerometer and Audio Features. Lecture Notes in Computer Science, 2021, , 196-205.	1.3	0
129	Artificial Intelligence in Medicine. , 2021, , 1-20.		0
130	ICDAR'21. , 2021, , .		0
131	Artificial Intelligence in Gastroenterology. , 2022, , 1-20.		0
132	Vid2Pix - A Framework for Generating High-Quality Synthetic Videos. , 2020, , .		0
133	Artificial Intelligence in Gastroenterology. , 2022, , 919-938.		0
134	Session details: Session 1: Multimodal Data Analysis. , 2022, , .		0