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## Deep Learning for Cardiac Image Segmentation: A Review

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301	Computational analysis of cardiac structure and function in congenital heart disease: Translating discoveries to clinical strategies. <b>2021</b> , 52,		1
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288	Automated image segmentation for cardiac septal defects based on contour region with convolutional neural networks: A preliminary study. <b>2021</b> , 24, 100601	1
287	Efficient Echocardiogram View Classification with Sampling-Free Uncertainty Estimation. <b>2021</b> , 139-148	
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279	Residual Learning: A New Paradigm to Improve Deep Learning-Based Segmentation of the Left Ventricle in Magnetic Resonance Imaging Cardiac Images. <b>2021</b> , 11, 159-168	2

278	Unsupervised Domain Adaptation Network With Category-Centric Prototype Aligner for Biomedical Image Segmentation. <b>2021</b> , 9, 36500-36511	0
277	Machine Learning Driven Contouring of High-Frequency Four-Dimensional Cardiac Ultrasound Data. <b>2021</b> , 11,	1
276	Region-of-Interest-Based Cardiac Image Segmentation with Deep Learning. <b>2021</b> , 11, 1965	7
275	Sensitivity analysis for interpretation of machine learning based segmentation models in cardiac MRI. <b>2021</b> , 21, 27	7
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273	A computationally efficient approach to segmentation of the aorta and coronary arteries using deep learning.	
272	Deploying deep learning approaches to left ventricular non-compaction measurement. <b>2021</b> , 77, 10138-10151	1
271	Applications of artificial intelligence in cardiovascular imaging. <b>2021</b> , 18, 600-609	23
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269	Automated cardiac volume assessment and cardiac long- and short-axis imaging plane prediction from electrocardiogram-gated computed tomography volumes enabled by deep learning. <b>2021</b> , 2, 311-322	2
268	Study on Potential of Meridian Acupoints of Traditional Chinese Medicine. <b>2021</b> , 2021, 5599272	1
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265	Edge-Sensitive Left Ventricle Segmentation Using Deep Reinforcement Learning. <b>2021</b> , 21,	5
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262	Whole Heart Segmentation Using 3D FM-Pre-ResNet EncoderDecoder Based Architecture with Variational Autoencoder Regularization. <b>2021</b> , 11, 3912	2
261	Instance Segmentation Based on Deep Convolutional Neural Networks and Transfer Learning for Unconstrained Psoriasis Skin Images. <b>2021</b> , 11, 3155	2

260	Validation of a deep-learning semantic segmentation approach to fully automate MRI-based left-ventricular deformation analysis in cardiotoxicity. <b>2021</b> , 94, 20201101	0
259	Quantifying inter-fraction cardiac substructure displacement during radiotherapy via magnetic resonance imaging guidance. <b>2021</b> , 18, 34-40	0
258	Echocardiographic image multi-structure segmentation using Cardiac-SegNet. <b>2021</b> , 48, 2426-2437	4
257	Tissue clearing and imaging methods for cardiovascular development. <b>2021</b> , 24, 102387	4
256	Artificial intelligence development in pediatric body magnetic resonance imaging: best ideas to adapt from adults. <b>2021</b> , 1	1
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250	Anatomy-aided deep learning for medical image segmentation: a review. <b>2021</b> , 66,	5
249	LCC-Net: A Lightweight Cross-Consistency Network for Semisupervised Cardiac MR Image Segmentation. <b>2021</b> , 2021, 9960199	
248	Artificial Intelligence for Automatic Measurement of Left Ventricular Strain in Echocardiography. <b>2021</b> , 14, 1918-1928	12
247	Transfer learning in medical image segmentation: New insights from analysis of the dynamics of model parameters and learned representations. <b>2021</b> , 116, 102078	11
246	Applications of artificial intelligence/machine learning approaches in cardiovascular medicine: a systematic review with recommendations. <b>2021</b> , 2, 424-436	6
245	A comprehensive comparison of various patient-specific CFD models of the left atrium for atrial fibrillation patients. <b>2021</b> , 133, 104423	5
244	Semi-Supervised Segmentation of Multi-vendor and Multi-center Cardiac MRI. <b>2021</b> ,	
243	LuQi Formula Regulates NLRP3 Inflammasome to Relieve Myocardial-Infarction-Induced Cardiac Remodeling in Mice. <b>2021</b> , 2021, 5518083	2

242	Automated Segmentation of the Human Abdominal Vascular System Using a Hybrid Approach Combining Expert System and Supervised Deep Learning. <b>2021</b> , 10,	2
241	A Framework for the generation of digital twins of cardiac electrophysiology from clinical 12-leads ECGs. <b>2021</b> , 71, 102080	20
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239	Artificial intelligence-enhanced echocardiography in the emergency department. <b>2021</b> , 33, 1117-1120	0
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236	Classification of Cardiomyopathies from MR Cine Images Using Convolutional Neural Network with Transfer Learning. <b>2021</b> , 11,	0
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234	Spectral augmentation for heart chambers segmentation on conventional contrasted and unenhanced CT scans: an in-depth study. <b>2021</b> , 16, 1699-1709	0
233	Classification and Visualisation of Normal and Abnormal Radiographs; A Comparison between Eleven Convolutional Neural Network Architectures. <b>2021</b> , 21,	3
232	Artificial Intelligence in Computer Vision: Cardiac MRI and Multimodality Imaging Segmentation. <b>2021</b> , 15, 1	0
231	Multi-scale wavelet network algorithm for pediatric echocardiographic segmentation via hierarchical feature guided fusion. <b>2021</b> , 107, 107386	1
230	Multichannel Multiscale Two-Stage Convolutional Neural Network for the Detection and Localization of Myocardial Infarction Using Vectorcardiogram Signal. <b>2021</b> , 11, 7920	2
229	Self-configuring nnU-net pipeline enables fully automatic infarct segmentation in late enhancement MRI after myocardial infarction. <b>2021</b> , 141, 109817	2
228	The Impact of Data Preprocessing on the Accuracy of CNN-Based Heart Segmentation. <b>2022</b> , 173-180	
227	Dynamic memory to alleviate catastrophic forgetting in continual learning with medical imaging. <b>2021</b> , 12, 5678	6
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224	Operative Workflow from CT to 3D Printing of the Heart: Opportunities and Challenges. <b>2021</b> , 8,	5
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219	Octree Representation Improves Data Fidelity of Cardiac CT Images and Convolutional Neural Network Semantic Segmentation of Left Atrial and Ventricular Chambers. <b>2021</b> , 3, e210036	0
218	The Use of Machine Learning for the Care of Hypertension and Heart Failure. <b>2021</b> , 1, 162-172	2
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216	MA-SOCRATIS: An automatic pipeline for robust segmentation of the left ventricle and scar. <b>2021</b> , 93, 101982	2
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209	A Persistent Homology-Based Topological Loss Function for Multi-class CNN Segmentation of Cardiac MRI. <b>2020</b> , 2020, 3-13	5
208	Deep Learning Based Centerline-Aggregated Aortic Hemodynamics: An Efficient Alternative to Numerical Modelling of Hemodynamics. <b>2021</b> , PP,	1
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203	LA-Net: A Multi-task Deep Network For The Segmentation of The Left Atrium. <b>2021</b> , PP,		3
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189	Automated Semantic Segmentation of Cardiac Magnetic Resonance Images with Deep Learning. <b>2020</b> ,		



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187	APPLICATION OF THE CONVOLUTIONAL NEURAL NETWORKS FOR THE SECURITY OF THE OBJECT RECOGNITION IN A VIDEO STREAM. <b>2020</b> , 4, 97-112	1
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108	Artificial Intelligence-Based Image Reconstruction in Cardiac Magnetic Resonance. <b>2022</b> , 139-147	
107	Shape-Consistent Generative Adversarial Networks for Multi-Modal Medical Segmentation Maps. <b>2022</b> ,	0
106	Deep Fusion of Ultrasound Videos for Furosemide Classification. <b>2022</b> ,	
105	Coronary Artery Disease Detection Model Based on Class Balancing Methods and LightGBM Algorithm. <b>2022</b> , 11, 1495	
104	A Stress Test of Artificial Intelligence: Can Deep Learning Models Trained From Formal Echocardiography Accurately Interpret Point-of-Care Ultrasound?. <b>2022</b> ,	
103	The Road Toward Reproducibility of Parametric Mapping of the Heart: A Technical Review. <i>Frontiers in Cardiovascular Medicine</i> , <b>2022</b> , 9,	5.4 0
102	Automatic Time-Resolved Cardiovascular Segmentation of 4D Flow MRI Using Deep Learning.. <b>2022</b> ,	0
101	Deep learning-based atherosclerotic coronary plaque segmentation on coronary CT angiography.. <b>2022</b> , 1	1
100	Physics-constrained deep active learning for spatiotemporal modeling of cardiac electrodynamics. <b>2022</b> , 105586	0
99	Machine Learning cardiac-MRI features predict mortality in newly diagnosed pulmonary arterial hypertension.	1

- 98 Autonomous environment-adaptive microrobot swarm navigation enabled by deep learning-based real-time distribution planning. 8
- 97 Deep Neural Network for Cardiac Magnetic Resonance Image Segmentation. **2022**, 8, 149 0
- 96 Towards fully automated segmentation of rat cardiac MRI by leveraging deep learning frameworks. **2022**, 12, 0
- 95 Development and diseases of the coronary microvasculature and its communication with the myocardium.
- 94 Comparison of two-dimensional and three-dimensional U-Net architectures for segmentation of adipose tissue in cardiac magnetic resonance images. 0
- 93 Regional left ventricular endocardial strains estimated from low-dose 4DCT: comparison with cardiac magnetic resonance feature tracking. 0
- 92 Validation of Artificial Intelligence Cardiac MRI Measurements: Relationship to Heart Catheterization and Mortality Prediction. 0
- 91 Real-time echocardiography image analysis and quantification of cardiac indices. **2022**, 102438 3
- 90 Quality of reporting in AI cardiac MRI segmentation studies: A systematic review and recommendations for future studies. *Frontiers in Cardiovascular Medicine*, 9, 5-4 0
- 89 Cardiac MRI Segmentation With Sparse Annotations: Ensembling Deep Learning Uncertainty and Shape Priors. **2022**, 102532 0
- 88 Building and evaluating an artificial intelligence algorithm: A practical guide for practicing oncologists. **2022**, 3, 42-53
- 87 Activation Function Selection for U-net Multi-structures Segmentation of End-Diastole and End-Systole Frames of Cine Cardiac MRI. **2022**,
- 86 Comprehensive Study: A Deep Learning and Machine Learning Classification Methods for Cardiogram Images. **2023**, 3-13
- 85 Shape Prior Based Myocardial Segmentation with Anatomically Motivated Pose Model. **2022**, 338-350
- 84 Automatic Liver Segmentation in Pre-TIPS Cirrhotic Patients: A Preliminary Step for Radiomics Studies. **2022**, 408-418
- 83 The system of personal early non-invasive diagnosis of cardiac conditions as an element of the cyber physical system. **2022**, 27, 203-210
- 82 Generation of Artificial CT Images using Patch-based Conditional Generative Adversarial Networks. **2022**, 0
- 81 Evaluation of a hybrid pipeline for automated segmentation of solid lesions based on mathematical algorithms and deep learning. **2022**, 12,

80	A survey of catheter tracking concepts and methodologies. <b>2022</b> , 102584	1
79	Cardiovascular Imaging Databases: Building Machine Learning Algorithms for Regenerative Medicine.	1
78	Domain generalization in deep learning for contrast-enhanced imaging. <b>2022</b> , 106052	1
77	Fully Automated Regional Analysis of Myocardial T2* Values for Iron Quantification Using Deep Learning. <b>2022</b> , 11, 2749	1
76	Optimized automated cardiac MR scar quantification with GAN-based data augmentation. <b>2022</b> , 226, 107116	1
75	Toward an automatic detection of cardiac structures in short and long axis views. <b>2023</b> , 79, 104187	1
74	Smoothness and continuity of cost functionals for ECG mismatch computation. <b>2022</b> , 55, 181-186	0
73	Contrastive Re-localization and History Distillation in Federated CMR Segmentation. <b>2022</b> , 256-265	0
72	Domain-incremental Cardiac Image Segmentation with Style-oriented Replay and Domain-sensitive Feature Whitening. <b>2022</b> , 1-1	0
71	A persistent homology-based topological loss for CNN-based multi-class segmentation of CMR. <b>2022</b> , 1-1	0
70	Analysis of Right Ventricle Segmentation in the End Diastolic and End Systolic Cardiac Phases Using UNet-Based Models. <b>2022</b> , 385-395	0
69	Joint Group-Wise Motion Estimation and Segmentation of Cardiac Cine MR Images Using Recurrent U-Net. <b>2022</b> , 65-74	0
68	Ensembled Prediction of Rheumatic Heart Disease from Ungated Doppler Echocardiography Acquired in Low-Resource Settings. <b>2022</b> , 602-612	0
67	Medical decision-Making based on Combined CRISP-DM Approach and CNN Classification for Cardiac MRI. <b>2022</b> ,	0
66	Predictive Power for Thrombus Detection after Atrial Appendage Closure: Machine Learning vs. Classical Methods. <b>2022</b> , 12, 1413	0
65	Automatic Segmentation of Lumbar Spine MRI Images Based on Improved Attention U-Net. <b>2022</b> , 2022, 1-10	0
64	Cardiac phase-resolved late gadolinium enhancement imaging. 9,	0
63	Fully automatic cardiac four chamber and great vessel segmentation on CT pulmonary angiography using deep learning. 9,	0

62	Artificial intelligence in cardiac magnetic resonance fingerprinting. 9,	0
61	Towards automatic classification of cardiovascular magnetic resonance Task Force Criteria for diagnosis of arrhythmogenic right ventricular cardiomyopathy.	0
60	MRI-Based Medical Image Recognition: Identification and Diagnosis of LDH. <b>2022</b> , 2022, 1-9	0
59	CMRSegTools: An open-source software enabling reproducible research in segmentation of acute myocardial infarct in CMR images. <b>2022</b> , 17, e0274491	0
58	3D U-Net based method for fast segmentation of whole heart from CT images. <b>2022</b> ,	0
57	In situ volumetric imaging and analysis of FRESH 3D bioprinted constructs using optical coherence tomography.	1
56	Deep learning watershed algorithm to calculate cardiac stroke volume of the left ventricle for the analysis to detect person suffering from cardiac vascular diseases using cardiac MRI data. <b>2022</b> ,	0
55	Automatic multi-anatomical skull structure segmentation of cone-beam computed tomography scans using 3D UNETR. <b>2022</b> , 17, e0275033	2
54	Systematic Analysis of CMR Segmentation Using Deep Learning.	0
53	Segmenting 3D geometry of left coronary artery from coronary CT angiography using deep learning for hemodynamic evaluation.	0
52	MMGL: Multi-Scale Multi-View Global-Local Contrastive Learning for Semi-Supervised Cardiac Image Segmentation. <b>2022</b> ,	1
51	FAS-UNet: A Novel FAS-Driven UNet to Learn Variational Image Segmentation. <b>2022</b> , 10, 4055	0
50	Deep label fusion: A generalizable hybrid multi-atlas and deep convolutional neural network for medical image segmentation. <b>2023</b> , 83, 102683	1
49	Two-stage training strategy combined with neural network for segmentation of internal mammary artery graft. <b>2023</b> , 80, 104278	0
48	Imaging and surgical management of congenital heart diseases.	0
47	Automatic segmentation of the great arteries for computational hemodynamic assessment. <b>2022</b> , 24,	0
46	Co-learning of appearance and shape for precise ejection fraction estimation from echocardiographic sequences. <b>2022</b> , 102686	0
45	Fully automated cardiac MRI segmentation using dilated residual network.	0



44	Automated Measurement of Native T1 and Extracellular Volume Fraction in Cardiac Magnetic Resonance Imaging Using a Commercially Available Deep Learning Algorithm. 23,	1
43	Co-attention spatial transformer network for unsupervised motion tracking and cardiac strain analysis in 3D echocardiography. <b>2023</b> , 84, 102711	0
42	Deep Learning and Analysis of Cardiovascular Imaging. <b>2022</b> , 241-255	0
41	Left Ventricle Wall Segmentation in Echocardiography Using B-Mode Image and Radio Frequency Signal Jointly. <b>2022</b> ,	0
40	Semantic Segmentation of Whole-Body Bone Scan Image Using Btrfly-Net. <b>2022</b> ,	0
39	Myocardial strain imaging in Duchenne muscular dystrophy. 9,	0
38	3D modeling and printing for complex biventricular repair of double outlet right ventricle. 9,	0
37	Segmentation of biventricle in cardiac cine MRI via nested capsule dense network. 8, e1146	0
36	Artificial Intelligence in Pediatric Cardiology: A Scoping Review. <b>2022</b> , 11, 7072	2
35	Cardiovascular magnetic resonance images with susceptibility artifacts: artificial intelligence with spatial-attention for ventricular volumes and mass assessment. <b>2022</b> , 24,	0
34	Can global longitudinal strain (GLS) with magnetic resonance prognosticate early cancer therapy-related cardiac dysfunction (CTRCD) in breast cancer patients, a prospective study?. <b>2022</b> ,	1
33	Segmentation Model Approaches using Cardiac Magnetic Resonance Images: A Review.	0
32	Myocardial strain analysis of echocardiography based on deep learning. 9,	1
31	Deep learning automates detection of wall motion abnormalities via measurement of longitudinal strain from ECG-gated CT images. 9,	0
30	A literature survey of MR-based brain tumor segmentation with missing modalities. <b>2023</b> , 104, 102167	0
29	GUDU: Geometrically-constrained Ultrasound Data augmentation in U-Net for echocardiography semantic segmentation. <b>2023</b> , 82, 104557	1
28	Deep Learning Based Parametrization of Diffeomorphic Image Registration for the Application of Cardiac Image Segmentation. <b>2022</b> ,	1
27	Comparison of Semi- and Un-Supervised Domain Adaptation Methods for Whole-Heart Segmentation. <b>2022</b> , 91-100	0

- 26 A Systematic Study of Race and Sex Bias in CNN-Based Cardiac MR Segmentation. **2022**, 233-244 ○
- 25 Cardiac Segmentation Using Transfer Learning Under Respiratory Motion Artifacts. **2022**, 392-398 ○
- 24 Automatic Image Quality Assessment and Cardiac Segmentation Based on CMR Images. **2022**, 439-446 ○
- 23 Rapid Morphological Measurement Method of Aortic Dissection Stent Based on Spatial Observation Point Set. **2023**, 10, 139 ○
- 22 Artificial intelligence in cardiology: did it take off?. **2023**, 2, 16-22 ○
- 21 Deep learning can yield clinically useful right ventricular segmentations faster than fully manual analysis. **2023**, 13, ○
- 20 How should studies using AI be reported? lessons from a systematic review in cardiac MRI. 3, ○
- 19 3D-printed and computational models: a combined approach for patient-specific studies. **2023**, 105-125 ○
- 18 Cross-Domain Echocardiography Segmentation with Multi-Space Joint Adaptation. **2023**, 23, 1479 ○
- 17 Anatomically-guided deep learning for left ventricle geometry generation with uncertainty quantification based on short-axis MR images. **2023**, 121, 106012 ○
- 16 Image-based estimation of the left ventricular cavity volume using deep learning and Gaussian process with cardio-mechanical applications. **2023**, 106, 102203 ○
- 15 An assessment of machine learning algorithms in diagnosing cardiovascular disease from right ventricle segmentation of cardiac magnetic resonance images. **2023**, 3, 100162 ○
- 14 Going Off-Grid: Continuous Implicit Neural Representations for 3D Vascular Modeling. **2022**, 79-90 ○
- 13 Update on state-of-the-art for arterial spin labeling ( ASL ) human perfusion imaging outside of the brain. **2023**, 89, 1754-1776 ○
- 12 Assisted probe guidance in cardiac ultrasound: A review. 10, ○
- 11 Developing an Echocardiography-Based, Automatic Deep Learning Framework for the Differentiation of Increased Left Ventricular Wall Thickness Etiologies. **2023**, 9, 48 ○
- 10 Artificial Intelligence as a Diagnostic Tool in Non-Invasive Imaging in the Assessment of Coronary Artery Disease. **2023**, 11, 20 ○
- 9 A deep learning approach for fully automated cardiac shape modeling in tetralogy of Fallot. **2023**, 25, ○

8	Atrium Segmentation Using Machine Learning. <b>2022</b> ,	o
7	Modelling blood flow in patients with heart valve disease using deep learning: A computationally efficient method to expand diagnostic capabilities in clinical routine. 10,	o
6	VENTSEG: efficient open source framework for ventricular segmentation. <b>2023</b> ,	o
5	Deep learning-based image segmentation model using an MRI-based convolutional neural network for physiological evaluation of the heart. 14,	o
4	Multilevel comparison of deep learning models for function quantification in cardiovascular magnetic resonance: On the redundancy of architectural variations. 10,	o
3	Bi-DCNet: Bilateral Network with Dilated Convolutions for Left Ventricle Segmentation. <b>2023</b> , 13, 1040	o
2	Enhancing physicians' radiology diagnostics of COVID-19's effects on lung health by leveraging artificial intelligence. 11,	o
1	Reducing segmentation failures in cardiac MRI via late feature fusion and GAN-based augmentation. <b>2023</b> , 161, 106973	o