

Resource Summary Report

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Seg3D

RRID:SCR_002552

Type: Tool

Proper Citation

Seg3D (RRID:SCR_002552)

Resource Information

URL: <http://www.seg3d.org>

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Description: A free volume processing segmenting tool that combines a flexible manual interface with powerful image processing and segmentation algorithms. Users can explore and label image volumes using slice windows and 3D volume rendering.

Abbreviations: Seg3D

Resource Type: data visualization software, rendering software, image analysis software, software resource, software application, image processing software, data processing software, segmentation software

Defining Citation: [PMID:29083867](#)

Keywords: analyze, c++, dicom, image display, linux, macos, microsoft, magnetic resonance, nrrd, posix/unix-like, rendering, segmentation, three dimensional display, visualization, volume rendering, win32 (ms windows), windows

Funding: NIGMS 8 P41 GM103545-15

Availability: Free, Available for download, Freely available

Resource Name: Seg3D

Resource ID: SCR_002552

Alternate IDs: nlx_155959

Alternate URLs: <http://www.nitrc.org/projects/seg3d>

License: MIT License

Record Creation Time: 20220129T080214+0000

Record Last Update: 20260728T043135+0000

Ratings and Alerts

No rating or validation information has been found for Seg3D.

No alerts have been found for Seg3D.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 101 mentions in open access literature.

Listed below are recent publications. The full list is available at [nidm-terms](#) .

Koivuholma A, et al. (2025) A pilot study comparing three-dimensional models of tumor histopathology and magnetic resonance imaging. Scientific reports, 15(1), 1888.

Yepes MF, et al. (2025) Noninvasive Targeted Temperature Management of the Inner Ear: Numerical Simulations and Experimental Measurements in a Human Cadaver Model. Otology & neurotology : official publication of the American Otological Society, American Neurotology Society [and] European Academy of Otology and Neurotology, 46(5), 598.

Wang C, et al. (2025) Structure, Mechanics, and Mechanobiology of Fibrocartilage Pericellular Matrix Mediated by Type V Collagen. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 12(32), e14750.

Prithiviraj S, et al. (2025) Compositional editing of extracellular matrices by CRISPR/Cas9 engineering of human mesenchymal stem cell lines. eLife, 13.

Giardini F, et al. (2025) Correlative imaging integrates electrophysiology with three-dimensional murine heart reconstruction to reveal electrical coupling between cell types. Nature cardiovascular research, 4(11), 1466.

Rocheleau CJ, et al. (2025) Use of an anatomical atlas in real-time EIT reconstructions of ventilation and pulsatile perfusion in preterm infants. Scientific reports, 15(1), 29622.

Piastra MC, et al. (2024) How to assess the accuracy of volume conduction models? A validation study with stereotactic EEG data. Frontiers in human neuroscience, 18, 1279183.

Wang C, et al. (2024) Structure-Mechanics Principles and Mechanobiology of Fibrocartilage Pericellular Matrix: A Pivotal Role of Type V Collagen. bioRxiv : the preprint server for biology.

Murray SB, et al. (2024) Assessing midbrain neuromelanin and its relationship to reward learning in anorexia nervosa: Stage 1 of a registered report. *Brain and behavior*, 14(6), e3573.

Heller DT, et al. (2024) Astrocyte ensheathment of calyx-forming axons of the auditory brainstem precedes accelerated expression of myelin genes and myelination by oligodendrocytes. *The Journal of comparative neurology*, 532(2), e25552.

Spirou GA, et al. (2023) High-resolution volumetric imaging constrains compartmental models to explore synaptic integration and temporal processing by cochlear nucleus globular bushy cells. *eLife*, 12.

Stouffer KM, et al. (2023) Early amygdala and ERC atrophy linked to 3D reconstruction of rostral neurofibrillary tau tangle pathology in Alzheimer's disease. *NeuroImage. Clinical*, 38, 103374.

Brandebura AN, et al. (2022) Transcriptional profiling reveals roles of intercellular Fgf9 signaling in astrocyte maturation and synaptic refinement during brainstem development. *The Journal of biological chemistry*, 298(8), 102176.

Karabelas E, et al. (2022) Global Sensitivity Analysis of Four Chamber Heart Hemodynamics Using Surrogate Models. *IEEE transactions on bio-medical engineering*, 69(10), 3216.

Stouffer KM, et al. (2022) Projective Diffeomorphic Mapping of Molecular Digital Pathology with Tissue MRI. *Communications engineering*, 1.

Wang KM, et al. (2022) Technical note: Evaluation of a silicone-based custom bolus for radiation therapy of a superficial pelvic tumor. *Journal of applied clinical medical physics*, 23(4), e13538.

Mendonca Costa C, et al. (2022) Determining anatomical and electrophysiological detail requirements for computational ventricular models of porcine myocardial infarction. *Computers in biology and medicine*, 141, 105061.

Chen Y, et al. (2022) In vitro and in vivo study of the pathogenic role of PPAR γ in experimental periodontitis. *Journal of applied oral science : revista FOB*, 30, e20220076.

Augustin CM, et al. (2021) A computationally efficient physiologically comprehensive 3D-0D closed-loop model of the heart and circulation. *Computer methods in applied mechanics and engineering*, 386, 114092.

Choi YJ, et al. (2021) 3D-Printed Ophthalmic-Retrobulbar-Anesthesia Simulator: Mimicking Anatomical Structures and Providing Tactile Sensations. *IEEE journal of translational engineering in health and medicine*, 9, 3800206.