Computerized Anatomical Reconstruction and Editing Toolkit

RRID:SCR_006260
Type: Tool

Proper Citation

Computerized Anatomical Reconstruction and Editing Toolkit (RRID:SCR_006260)

Resource Information


Description: A free, open-source, software package used to visualize and analyze the structural and functional characteristics of cerebral and cerebellar cortex in humans, nonhuman primates, and rodents. It runs on Apple (Mac OSX), Linux, and Microsoft Windows operating systems. The software includes two main programs, caret5 and caret_command. caret5 is a graphical user interface (GUI) for interactively manipulating and viewing neuroimaging data. caret_command is a command line program that allows batch processing of neuroimaging data. Caret 5.61 Functionality * Atlases and associated experimental data (see (Caret:Atlases Atlases)). * Capture images and create movies of surface, volume, and contour (border) data. * Caret-command script builder and executor for algorithm testing and batch processing. * Classify regions of a surface using border and paint operations. * Connect and transfer data to and from the (Sums:About SuMS database). * Flexible overlay system for displaying a variety of data in layers on surfaces or volumes. * Map neuroimaging activation foci (stereotaxic coordinates) to surfaces and volumes. * Map functional and other volume data to surfaces. * Map surface-based data (e.g., cortical areas) onto volumes. * Metadata handling that can encode processing steps, vocabularies, citations. * Multiple windows for simultaneous display of contours, surfaces, and volumes. * Read and write many file formats (Analyze, AFNI, Caret, FreeSurfer, GifTI, NIfTI, and many others). * Surface-based statistics (based on sulcal depth and other shape characteristics). * Surface inflation and flattening. * Surface reconstruction via segmentation of anatomical volume data (SureFit method). * Surface reconstruction from contours. * Surface region of interest operations. * Visualization of contour, surface, and volumetric data. WebCaret allows Caret-like online visualization of data sets in the Sums DB database without downloading software or data.
**Resource Name:** Computerized Anatomical Reconstruction and Editing Toolkit

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**Resource Type:** Resource, software resource, software application, image processing software, data visualization software, data processing software

**Keywords:** reconstruction, visualization, cerebral cortex, surface, brain, dataset, cerebellar cortex, atlas application, mesh generation, quantitative shape analysis, segmentation, shape analysis, intersubject, image-to-template, gaussian curvature, mean curvature, animation, three dimensional display, two dimensional display, surface rendering, cortical flat map

**Resource ID:** SCR_006260

**Parent Organization:** Washington University School of Medicine in St. Louis; Missouri; USA

**Related resources:** SumsDB

**Availability:** GNU General Public License

**Website Status:** Last checked down

**Alternate IDs:** nif-0000-00279

**Alternate URLs:** http://www.nitrc.org/projects/caret

**Abbreviations:** CARET

**Mentions Count:** 53

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### Ratings and Alerts


No alerts have been found for Computerized Anatomical Reconstruction and Editing Toolkit.

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### Data and Source Information

**Source:** SciCrunch Registry

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### Usage and Citation Metrics

We found 53 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [FDI Lab - SciCrunch Infrastructure](http://www.nitrc.org/projects/caret).


Marzetti L, et al. (2014) Magnetoencephalographic alpha band connectivity reveals
differential default mode network interactions during focused attention and open monitoring meditation. Frontiers in human neuroscience, 8, 832.


