

Resource Summary Report

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VisuAlign

RRID:SCR_017978

Type: Tool

Proper Citation

VisuAlign (RRID:SCR_017978)

Resource Information

URL: <http://www.nitrc.org/projects/visualign/>

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Description: Software tool for applying user guided nonlinear refinements (inplane) to existing, affine 2D-to-3D registration. Used for precise quantitative analysis of residual anatomical variability among test subjects after registration with QuickNII. VisuAlign is part of the QUINT workflow.

Resource Type: image analysis software, data analysis software, software application, software resource, registration software, data processing software

Defining Citation: [PMID:41069395](https://pubmed.ncbi.nlm.nih.gov/41069395/)

Keywords: Nonlinear refinement, 2D, 3D, registration, quantitative analysis, residual anatomical variability

Funding: European Union's Horizon 2020 Framework Programme for Research and Innovation under the Framework Partnership Agreement No. 650003 (HBP FPA) and the European Union's Horizon Europe Programme for Research Infrastructures Grant Agreement No. 101147319 (EBRAINS 2.0).

Availability: Free, Available for download, Freely available

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Alternate URLs: <https://visualign.readthedocs.io/>;
<https://github.com/Tevemadar/VisuAlign>, <https://github.com/Neural-Systems-at-UIO/VisuAlign>

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Record Creation Time: 20220129T080338+0000

Record Last Update: 20260801T042811+0000

Ratings and Alerts

No rating or validation information has been found for VisuAlign.

No alerts have been found for VisuAlign.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 36 mentions in open access literature.

Listed below are recent publications. The full list is available at [T1D](#).

Moan K, et al. (2025) Differences in Cajal-Retzius Cell Density and Postnatal Persistence Across Cortical Areas Revealed by a Novel Intersectional Genetic Labeling Approach. The Journal of comparative neurology, 533(11), e70106.

Carey H, et al. (2025) DeMBA: a developmental atlas for navigating the mouse brain in space and time. Nature communications, 16(1), 8108.

Sungeelee S, et al. (2025) A genetically defined pontine nucleus essential for ingestion in mice. Proceedings of the National Academy of Sciences of the United States of America, 122(29), e2411174122.

Messore F, et al. (2025) An orexin-sensitive subpopulation of layer 6 neurons regulates cortical excitability and anxiety behaviour. Translational psychiatry, 15(1), 147.

Soto-Avellaneda A, et al. (2025) Helicobacter pylori infection and α -synuclein pathology drive parallel neurodegenerative pathways in the substantia nigra. Journal of neuroinflammation, 22(1), 293.

Tieze SM, et al. (2025) Molecular elucidation of brain lipofuscin in aging and Neuronal Ceroid Lipofuscinosis. Research square.

Huang ML, et al. (2025) Misclassification in memory modification in AppNL-G-F knock-in mouse model of Alzheimer's disease. eLife, 14.

Kasen A, et al. (2025) Seed structure and phosphorylation in the fuzzy coat impact tau seeding competency. Nature communications, 16(1), 9240.

Mohar B, et al. (2025) DELTA: a method for brain-wide measurement of synaptic protein turnover reveals localized plasticity during learning. Nature neuroscience, 28(5), 1089.

Manjila SB, et al. (2025) Brain-wide connectivity and novelty response of the dorsal endopiriform nucleus in mice. *Cell reports*, 44(7), 115827.

Puchades MA, et al. (2025) Software and pipelines for registration and analyses of rodent brain image data in reference atlas space. *Frontiers in neuroinformatics*, 19, 1629388.

Kim J, et al. (2024) Bidirectional Control of Emotional Behaviors by Excitatory and Inhibitory Neurons in the Orbitofrontal Cortex. *Experimental neurobiology*, 33(5), 225.

Jiang Z, et al. (2024) Dopaminergic Neurons in Zona Incerta Drives Appetitive Self-Grooming. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 11(36), e2308974.

Blixhavn CH, et al. (2024) The Locare workflow: representing neuroscience data locations as geometric objects in 3D brain atlases. *Frontiers in neuroinformatics*, 18, 1284107.

Goralski TM, et al. (2024) Spatial transcriptomics reveals molecular dysfunction associated with cortical Lewy pathology. *Nature communications*, 15(1), 2642.

Vadisiute A, et al. (2024) Glial cells undergo rapid changes following acute chemogenetic manipulation of cortical layer 5 projection neurons. *Communications biology*, 7(1), 1286.

Vatsa N, et al. (2024) Network analysis of α -synuclein pathology progression reveals p21-activated kinases as regulators of vulnerability. *bioRxiv : the preprint server for biology*.

Kleven H, et al. (2024) Comparison of basal ganglia regions across murine brain atlases using metadata models and the Waxholm Space. *Scientific data*, 11(1), 1036.

Gurdon B, et al. (2024) Detecting the effect of genetic diversity on brain composition in an Alzheimer's disease mouse model. *Communications biology*, 7(1), 605.

Sokratian A, et al. (2024) Mouse α -synuclein fibrils are structurally and functionally distinct from human fibrils associated with Lewy body diseases. *Science advances*, 10(44), eadq3539.