

Joint Classification and Segmentation of 2D T1-weighted CE-MRI Images Using Deep Learning

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- Data preprocessing (train/test/validation splits, class weights, color intensity normalization)
- Train AlexNet to classify tumors in MRI images, refine results with attention mechanisms.
- CNN visualization with Class Activation Maps (CAMs) to improve interpretability of images.
- Segmentation of tumors into Glioma, Pituitary, and Meningioma using UNET.
- Design a generalized pipeline for computer-aided diagnosis using other imaging modalities.

