Diagnosis of Dementia with Deep Convolutional Neural Networks

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Diagnosis of dementia is a difficult and challenging problem. The availability of public MRI data is limited, and computer-aided methods typically rely on handcrafted features. In this work, we present a robust method for dementia diagnosis using only 3D MRI scans. At the core of our method is a novel multi-layer deep convolutional neural network, architected to account for the limited amount of data. We evaluate our work on the publicly available OASIS dataset, and show that our method beats the classification accuracy of human radiologists.

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