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Implementation of Alzheimer's Disease using MRI Image

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Abstract: *As the global population ages, the prevalence of dementia caused by Alzheimer's disease is expected to increase, posing a significant healthcare challenge. Dementia is a leading cause of disability and dependency among older people, and it also has broad physical, psychological, social, and economic impacts on individuals, their caregivers, families, and communities. Despite the existence of treatments to manage dementia symptoms, a lack of awareness and understanding of the condition often leads to stigmatization and difficulties in accessing diagnosis and care. Neuroimaging is a viable method for reaching this objective because early Alzheimer's disease detection is essential for successful intervention. Although dementia cannot be cured, controlling symptoms can enhance the quality of life for those who have the condition. The objective is to employ structural magnetic resonance imaging (sMRI) information to examine deep learning algorithms for the identification of significant biomarkers related to Alzheimer's disease. The suggested method employs Convolutional Neural Networks (CNNs) to classify brain images into one of categories of Alzheimer disease as Non Demented, Very Mild Demented, Mild Demented and Moderate Demented.*

Keywords: Artificial Intelligence, Alzheimer disease, Deep learning, Accuracy, Classifier models

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