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# Machine Learning Techniques for Alzheimer Detection

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**Abstract:** The proper diagnosis of Alzheimer's disease (AD) in the pre-stage plays a very important role in the treatment of patients. The most important challenges in biomedical researchand clinical practice include the need to develop and apply innovative tools for the effective integration, analysis and understanding of complex biomedical data to identify the testable hypothesis and build perfect models to diagnose and predict various stages of AD. The algorithms must also handle inadequate, noisy, and ambiguous information. Efficient ML/DL approaches become necessary in the health care industry to report these issues. This paper provides a review of some of the important literature on AD and explores how Machine Learning algorithms help scholars for early detection and prediction of AD.

**Keywords:** Alzheimer's disease(AD), artificial neuralnetwork, support vector machine(SVM), machine learning(ML), deep learning(DL), deep neural network, Alzheimer's disease Neuroimaging Initiative (ADNI)

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