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## Machine Learning Approaches for ADHD Detection

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**Abstract:** This report explores the application of deep learning convolutional neural networks (CNNs) for analyzing brain MRI scans to assist in the diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) syndrome. ADHD is a neuro developmental disorder that affects millions of individuals worldwide, characterized by difficulties in attention, hyperactivity, and impulsivity. Traditional methods of diagnosis rely on subjective assessments and behavioral observations, leading to inaccuracies and delays in treatment. Leveraging the power of deep learning CNNs for MRI analysis offers the potential for more objective and efficient diagnosis, facilitating timelyintervention and personalized treatment strategies

Keywords: convolutional neural networks

