

CNN Trading System: AI-Powered Market Analysis Platform

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Abstract: *This project aims to develop an advanced trading system utilizing Convolutional Neural Networks (CNNs) to analyze stock market data and generate trading signals with enhanced precision and reliability. By transforming technical indicators and historical price data into image-like representations, the system leverages the ability of CNNs to detect intricate patterns and anomalies that traditional statistical and machine learning methods often overlook. The system also incorporates dynamic risk management strategies to optimize trading performance while minimizing potential losses. Furthermore, it supports continuous learning by retraining the model with new data, ensuring adaptability to evolving market trends and conditions. The end goal is to empower traders with an intelligent, data-driven tool that enhances decision-making and maximizes profitability across diverse trading scenarios.*

Keywords: *Convolutional Neural Network, Stock Market Analysis, Deep Learning, Technical Indicators, Algorithmic Trading, Risk Management, Streamlit Visualization, Financial Technology.*