

Title of Your Paper

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Extended Abstract

Abstract

This document presents a comprehensive quantitative system for predicting market states and providing optimal investment strategies. The system classifies market periods as Bull (20% or more increase in stock prices), Bear (20% or more decline in stock prices), or Static based on drawdown metrics, then employs machine learning and deep learning models to predict future states. The prediction results are used to implement multiple investment strategies that dynamically allocate between equities and bonds. Additionally, the system incorporates advanced anomaly detection, catastrophe modeling, and tail risk analysis to enhance decision-making during extreme market events such as COVID-19. Backtesting demonstrates that the prediction-based strategy achieves comparable or even improved returns to buy-and-hold with significantly reduced drawdown risk and higher risk-adjusted returns.

1 Problem Statement

This section introduces the problem, provides background information, and states the paper's objectives. Keep it brief, as this is a short paper format.

2 Analysis

Describe your methodology here. This section should include details of the approach, techniques, and processes used in the study.

3 EDA

Present the results here. This section should summarize the findings without going into extensive detail, appropriate for a 2-page limit.

4 Approach

Conclude the paper by summarizing the findings, implications, and potential future work.

5 Results

6 Performance

7 Conclusion