## 11th MEFT Workshop



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## Using Machine Learning and Fundamental Analysis to Find the Intrinsic Value of Stocks

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Nowadays, the stock market's complexity and volatility pose significant challenges to traditional investment strategies. To address these issues, combining machine learning techniques with fundamental analysis provides a more advanced approach to determining the intrinsic value of stocks. By leveraging models such as Random Forest, Support Vector Machines (SVM), and XGBoost, alongside key financial indicators like the Piotroski F-Score and Altman Z-Score, this method enhances the accuracy of intrinsic value predictions. Analysing financial statement data helps identify companies with strong financial health and long-term growth potential. Additionally, the impact of various investment strategies on portfolio performance is evaluated, particularly in the context of significant price drops, price increases, and deviations from the S&P 500 index. Integrating these advanced analytical tools enables greater precision and

efficiency in investment decision-making, optimising outcomes, and effectively navigating the complexities of today's stock market. This approach is further validated by comparing the performance of constructed portfolios against key financial metrics, including ROI, Sharpe Ratio, Sortino Ratio, and Value at Risk (VaR).

Primary author: FRAZÃO, Bernardo

Presenter: FRAZÃO, Bernardo