

Statistical Modeling of Stock Investment During COVID-19

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Abstract

The purpose of this research is to find the COVID-19 pandemics that did influence the stock market as the past stock market crashes that happened in 1929 and 1987. In late February, due to the coronavirus pandemic spread out, the stock market started crashing. By creating a new multivariate statistical model and analyzing the coronavirus pandemic, the authors found out the recession of the stock market. The data to be analyzed includes eight previously bought stocks which averagely gained a lot and are considered to sell. Authors then bought twenty-three stocks that were COVID-19 impacted but expected to surge in the future. The research is supposed to find out if there is any possible opportunity to do stock exchange operations instead of merely buying or selling. All the data used the Z-Standardized Algorithms calculation to convert to be ready for comparison. There are three most important indexing signals, the selling, buying, and exchanging, through the statistical analysis software JMP, to find the correlation between the stock market and the pandemic trends and to show how to earn money for college tuition. The project used the Quantile Range Outliers Algorithm, and Robust Fit Outliers Algorithm to find the best occasion and strategy of stock investment.

Keywords

Stock investing, COVID-19 pandemic, Z-Standardized

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Biographies

Chi-hong Ho is the World Karate Organization certified karate black belt. He took part in the Shinkyokushin Karate Fukuoka competition. He is a member of his school golf varsity team also.

Mason Chen is the leader of the STEAMS. He loves to swim in his free time.