

Title	Spikes-Eye: Stock Market Price Spikes Detection in Philippine Stock Exchange Composite Index (PSEi) Using Deep Learning
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ABSTRACT

The financial sector is the best way of making money because of its stability during some sort of economic turmoil and significant events such as a pandemic. Despite this solidity, the share market's values can not be entirely forecasted; instead, the force of chance plays a significant role in how investors spend their profit. Assessing these uptrend measures will be useful for potential stock market investors' references, as statistical data is being used to assess the likelihood of the direction in which the stock price will move. Using object recognition is a way to accurately recognize these upward movements since the background of the stock market stretches back at least 20 years at most. To assess uptrends, specifically the upward spikes of historical stock market charts of indices on the Philippines stock market, this research focuses on object recognition using transferred learning. Also, this analysis will use only the transferred learning of YoloV3 object recognition and will not recognize any other artifacts in the PSEi other than the upward spikes and clear upward trend price movement. To ensure consistency in the tests, the charts will have to be uniformly configured; the black background, the yellow positive candles, the red negative candles, and the light yellow borders for the wicks and the candles. Overall, in the fundamental principle of evaluating the upward spikes in the Philippines Stock Exchange, the project is reliable. The research will successfully assess the uptrend spikes of the images with an accuracy of 80 percent based on the 30-image test and accuracy of 93.5745 percent to 94.3409 percent based on the design training.

Keywords: Deep Learning, Prediction, Psei, Spike, Stock Market, YoloV3