

Abstract

Scientists have used portfolio optimization to minimize stock risk. One of the methods in portfolio optimization is the Mean-Variance method. Mean-Variance considers two things, namely the expected return from historical data and the variance return from historical data. However, relying on these two things is not enough. Therefore, scientists have found a way, where one of the ways is to predict with time series data. Predicting with time series data itself has many kinds, one of which is by predicting the results of stock returns. In this final project, this portfolio optimization will consider the results of the stock return prediction using the Long Short Term Memory or LSTM method. The dataset to be used is the dataset from the Jakarta Islam Index or JII stock which has a 7 year vulnerable period, from December 3, 2013 to December 3, 2020.

Keywords: Portofolio; Variance; LSTM; Return;