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An Optimized Support Vector Machine (SVM) based on Particle Swarm Optimization (PSO) for Cryptocurrency Forecasting (Conference Paper) (Open Access)

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Abstract

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Forecasting accurate future price is very important in financial sector. An optimized Support Vector Machine (SVM) based on Particle Swarm Optimization (PSO) is introduced in forecasting the cryptocurrency future price. It is part of Artificial Intelligence (AI) that uses previous experience to forecast future price. Analysts and investors generally combine fundamental and technical analysis prior to decide the best price to execute their trades. Some may use Machine Learning Algorithms to execute their trades. However, forecasting result using basic SVM algorithms does not really promising. On the other hands, Particle Swarm Optimization (PSO) is known as a better algorithm for a static and simple optimization problem. Therefore, PSO is introduced to optimize the algorithms of SVM in cryptocurrency forecasting. The experiment of selected cryptocurrencies is conducted for this classifier. The experimental result demonstrates that an optimized SVM-PSO algorithm can effectively forecast the future price of cryptocurrency thus outperforms the single SVM algorithms. © 2019 The Authors. Published by Elsevier B.V.

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