Dissertação de Mestrado em
Engenharia Informática (2018/2019)

Title: Predictive algorithms for stock prices forecasting

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Summary

Despite its prevalence, stock prices prediction remains a secretive and empirical art. On the one hand, successful strategies and trends represent non-shareable information. On the other hand, in the last years the predictive algorithms were disseminated in several areas such as healthcare, insurance, or marketing, just to mention a few. In line with this, some financial applications were developed to support the investment decision making (e.g. StocksNeural [1]). However, the evaluation of stock prices prediction models remains understudied and/or untested. In addition, a benchmark including different models and techniques is timely and may to provide a greater academic understanding on this topic.

The present topic focuses both on the evaluation of predictive models, and on the design of a computerized tool that may support the decision making related with investments on the stock market.

Tasks

• T1 – Technological background study;
• T2 – Review the State-of-the-art;
• T3 – Requirements Analysis;
• T4 – Design and construction, including integration;
• T5 – Testing and evaluation;
• T6 – The writing of the dissertation.

Expected result

In this research work the following deliverables are expected:
• A validated computational tool to predict stock prices;
• A publication describing the method and the validation results.

Timeline

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
T1	X	X	X						
T2		X	X	X					
T3			X	X					
T4				X	X	X			
T5						X	X	X	
T6					X	X	X	X	X

References:

1. https://stocksneural.net/about. Accessed on 11.07.2018.