

Applying Hybrid Graph Drawing and Clustering Methods on Stock Investment Analysis

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Abstract : Stock investment decisions are often made based on current events of the global economy and the analysis of historical data. Conversely, visual representation could assist investors' gain deeper understanding and better insight on stock market trends more efficiently. The trend analysis is based on long-term data collection. The study adopts a hybrid method that combines the Clustering algorithm and Force-directed algorithm to overcome the scalability problem when visualizing large data. This method exemplifies the potential relationships between each stock, as well as determining the degree of strength and connectivity, which will provide investors another understanding of the stock relationship for reference. Information derived from visualization will also help them make an informed decision. The results of the experiments show that the proposed method is able to produced visualized data aesthetically by providing clearer views for connectivity and edge weights.

Keywords : clustering, force-directed, graph drawing, stock investment analysis

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