Abstract

Algorithmic Finance is currently a nascent topic in today's time and is being researched around by various researchers around the globe. It involves the use of computer programs to buy and sell securities based on a pre-determined set of rules. Such algorithms have gained widespread use among institutional investors in major markets around the world. This paper discusses the various aspects of a financial algorithm and its prospects in the future. Algorithmic finance, being a relatively new field has plenty of scope to grow. The scope of this field of study, which we are inclined towards, is to develop software, which would help us understand the market trends. Since it is a computer algorithm, it would save a lot of time and effort, and also reduce the risk of our investment by a considerable margin. Algorithmic trading may be used in any investment strategy or trading strategy, including market making, inter-market spreading, arbitrage, or pure speculation (including trend following). The investment decision and implementation may be augmented at any stage with algorithmic support or may operate completely automatically.
References

1. Adaptive arrival place by Robert Almgren and Julian Lorenz
2. Monte-Carlo Evaluation of trading systems by Timothy Masters
3. Algorithmic Trading and Computational Finance by Michael Kearns (Computer and information science, University of Pennsylvania)
4. Online Financial Algorithms by Sandeep Kumar and Deepak Telang (Thapar University, Patiala)

Index Terms

Computer Science Algorithms

Keywords

Financial instruments, Derivatives, Funds, Indices, Statistical graphs, small cap, mid cap, High frequency trading, algo-trading