



HOW IS AI SHAPING THE FUTURE OF HEDGE FUND INVESTING

Abstract

Artificial Intelligence (AI) has been one of the fastest growing technologies in the recent past. Faster and cheaper access to storage and computational power along with generation of massive amounts of data have been enablers in driving rapid growth in AI solutions. It has been adopted across industries such as financial services, healthcare, retail, travel and is shaping them in ways unimaginable a decade ago.

With a rapid increase in amount of financial data and the use of High frequency trading (HFT) for investing decisions, there has been a drastic transformation in Hedge Fund Investing in the past decade. This has complicated the process of taking investment decision and executing it in a timely manner for individuals. And it becomes even more challenging when investors have to act under natural time constraints and tight deadlines. This is where AI can provide capability to process vast amounts of unstructured data in order to generate investment ideas and execute trades quickly.

This paper discusses about how Hedge Fund Institutions are using AI for their investment decisions and how it is shaping the Future of Hedge Fund investing – Will it be machine dominated market leading to Financial Singularity?



How Hedge Funds Use AI?

Hedge Fund Institutes are using AI in order to predict asset prices, develop and investment strategy, portfolio management, diversification and much more. According to a survey conducted by Barclays Hedge Fund, around 56% of the hedge funds relied on AI to make their investment decisions. Bit by bit AI is increasing its involvement in investing space and as computational power and data keeps on rising, there is an estimate by Man Group Plc that AI would be involved in 99% of the investment decisions in next two decades. Opimas estimates that by 2025, AI would take over 90,000 out of 300,000 jobs in asset management worldwide.

The core focus of any Hedge Fund is to generate Alpha, which is return over and above benchmark market index. Hedge Funds are now using Supervised, Reinforcement and Deep Learning AI models to predict asset prices by analyzing vast amount of unstructured data. Firms are also turning to AI for improving operational efficiencies and investor relationship.

Generating Investment Alpha:

Firms are using AI based models which can analyze massive amounts of unstructured data such as text, images, voice across multiple external data sources in real-time to identify patterns and correlations between data points to come up with investing ideas. External data sources would include data from news, discussions on social media to analyze consumer sentiment with respect to organizations, satellite imagery to monitor their investments and mobile devices to generate insights related to consumers.

Operational Efficiency:

Hedge Fund managers are increasing looking out for ways to optimize their middle and back office operations with AI. As teams are moving more and more towards cloud ERP and digital, AI solutions are providing edge in managing day to day operations. For eg: BNY Mellon's hedge fund are using AI in order to analyze historic trade break data to predict insights regarding current trade breaks. AI also empowers firm with decision making in the field of compliance and risk management and reduces cost of operations which has become critical for the survival of Hedge Funds today. With the increasing use of cloud based architecture, AI services are becoming more of plug and play for firms to easily deploy them for use.

Future of Hedge Fund Investing with AI:

Now where are we heading with AI growing powerful day on day. Can there be financial singularity with AI dominating the investing space in future? Let's first understand what financial singularity is. Markets exists because there is no consensus on correct price of an assets. There is always a buyer and a seller with different views regarding an asset price at that point in time. There are different view because participants don't have access to all data to price an asset. If there comes a point when all market participants had access to all data to price an asset there would be no market inefficiencies and the price of that asset won't move.

When artificially intelligent systems trading surpasses capabilities of human trading, It would become make sense to employ only intelligent machines than humans for making investment decisions. As machines would remove inefficiencies in the market, finding out investment ideas with alpha would also disappear and all future returns would be zero. This is called financial singularity.

Conclusion

With exponential increase in technological power, having capability to have entire information needed to price an asset will be possible in the near future but the question is why would we as human market participants would want it.

AI is definitely reshaping the hedge fund investing as we know it and will continue to do so in a significant way in future. The future in hedge fund investing will not create a complete machine dominated market as financial singularity will not benefit us as market participants. But it will instead be a synergy of human-machine intelligence to generate higher returns and efficiency.



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