

# What Quant Trading Firms Need in the Race for Alpha



Over the past decade, quantitative trading (quant trading) strategies have been subject to increasing scrutiny regarding their ability to seek, discover, and retain alpha, the measure of an investment's performance relative to a benchmark. As financial markets become increasingly complex and global, the competition to generate alpha becomes more intense. This makes access to diverse, accurate and timely data crucial.

## Quant Trading Data Demands Are Evolving

In the past, [quantitative trading](#) researchers and data scientists focused on the *size of their data sets* and *the speed* at which they could access them. However, as the market environment becomes more fast-paced, the key differentiators have evolved to:

- Efficiency of models to adapt quickly to changing market conditions
- An infrastructure ecosystem that empowers the agility required for success

The more data a firm can access and process, the better positioned it is to make strategically timed, profitable trades. Analysts must ensure the data they use is accurate, comprehensive, and up-to-date while building, testing, and deploying advanced algorithms that can process and assess massive data sets

quickly and efficiently.

## Mitigate Risk by Diversifying Data Sources

Two critical factors that can make or break a strategy are the concentration and diversification of data sources. Diversifying data sources can help mitigate risk, reduce exposure to specific market conditions, and provide a more complete picture of the sector. With existing and anticipated future market volatility and uncertainty, probabilistic forecasting has become essential for long-term vitality. Testing multiple scenarios to ensure investment execution is timed perfectly and capable of pivoting at a moment's notice is crucial and an often-determinant factor of pole position in the race for alpha.

## Empower Data Scientists with Innovative Solutions

Data is also the driving force behind ideas and data scientists play a significant role in setting firms apart. At Pure Storage, our mission is to empower researchers with ease of data access and utilization, providing innovative solutions that power models to process and react faster to market conditions. Pure Storage [FlashBlade](#)® allows for training models on a single, all-flash tier of storage, which eradicates the traditional barriers of speed at scale. FlashBlade can reduce the time from inception to production and yields better return on investment (ROI).

Moreover, our [AIRI//S](#)™ solution provides researchers with deep learning and AI infrastructure that enables massive compute power, faster data ingestion, and effortless scaling. The platform is ideal for tackling complex problems that require extensive computational resources. With Pure, analysts can delve into the most extensive and complex data sets, implement advanced algorithms, and generate higher-quality research. By being less encumbered by infrastructure limitations, analysts can make agile decisions, giving firms a competitive edge in the marketplace.

To succeed in the race for alpha, firms must embrace cutting-edge technology and continuously adapt to changing market conditions. At Pure, we provide innovative solutions that enable researchers to access and utilize data more effectively, and to generate higher-quality research. Our solutions are designed to empower researchers with ease of data access and utilization, providing them with the agility and flexibility to pivot quickly as market conditions evolve.

*Learn how Pure Storage's all-flash solutions can help accelerate your trading strategies in our new [Quantitative Trading white paper](#). And find out how [financial firms](#) can get the most from their data with an architecture that's built for innovation.*