

Decision support tool combining Artificial Intelligence and Behavioural Finance adapted to trading and portfolio management

The French NCC: CC-FR, dedicated to HPC, HPDA and AI technologies, brings together the community of technology providers and users. CC-FR federates the HPC, HPDA and AI ecosystem and supports SMEs on the use of intensive computing, high-performance data analysis and artificial intelligence.



Organisations Involved

CC-FR, set up within the framework of EuroHPC, is managed by the European Pole of Competence in high performance digital simulation Teratec, in association with the European Center for Advanced Research and Training in Scientific Computing Cerfacs and with the participation of the Big National Equipment Intensive Computing Genci.



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Horae Technology is an entrepreneurial and independent investment management company, founded in 2021. Their mission is to enhance the value of their clients' savings. Horae Technology addresses both private clients and institutional investors through the mutual fund « Horae Opportunities » and the management of customised mandates. With the support of the Ecole Polytechnique, Horae Technology develops experimental decision-support algorithms inspired by behavioural finance and deep reinforcement learning



The Challenge

In September 2021, Horae Technology contacted the CC-FR Tailored Program, to benefit from a high-level support in intensive computing.

Solution

In collaboration with CRIANN (Regional Centre Information Technology and Digital Applications Normandy), Horae Technology was able to access the MYRIA supercomputer, equipped with more than 10,000 computing cores connected in very high throughput, and capable close to 700 trillion transactions per second.

Thanks to the CRIANN high-level expertise in intensive computing, Horae Technology has been able to significantly increase the power of its artificial intelligence tool and the robustness of its models. Individual and personalized support also enabled the company to quickly become autonomous in the use of the MYRIA supercomputer.

Business Impact

Up to day, Horae Technology continues to improve its tool and they aim for a full integration of artificial intelligence in their investment process over a period of 6 months.

Benefits

This computing power enabled the company to...

- ✔ Significantly improve the calculation time of its intelligence algorithm's artificial training
- ✔ Accelerate the performance of its tool through the parallelization of its code and the ability to analyze thus thousands of financial securities simultaneously



Figure 2: Retroactive evaluation of buy and sell signals

- › HPC
- › AI
- › HPDA
- › Algorithm
- › Parallelization

› Industry Sector: Finance

› Technology: AI

Contact:

Dr Karim Azoum

LinkedIn: <https://www.linkedin.com/in/karim-azoum-45011710a>

Email: Karim.azoum@teratec.fr

+33 7 62 74 03 60