

# AI & Machine Learning Research Platform

Photo: Roberto Sorini//Unsplash

## Optimization, parallelization and porting of an AI algorithm to HPC Architecture

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.



Advestis, <https://www.advestis.com>, is a European Contract Research Organization (CRO) with practice of data science. Based in Paris, Advestis is a pure player in data science, with 14 data scientists and more than 40 projects since 2011. Advestis provides resources to put into production machine learning pipelines. Their goal is to push the Technology Readiness Level (TRL) of their customers' innovations in data science projects for: Financial institutions, Predictive maintenance and Medical research.



### Technical Challenge

Advestis integrated the CC-FR Tailored Program, to benefit from a high-level support in intensive computing.



Figure 1: logo of the NILAR-ENCCS collaboration

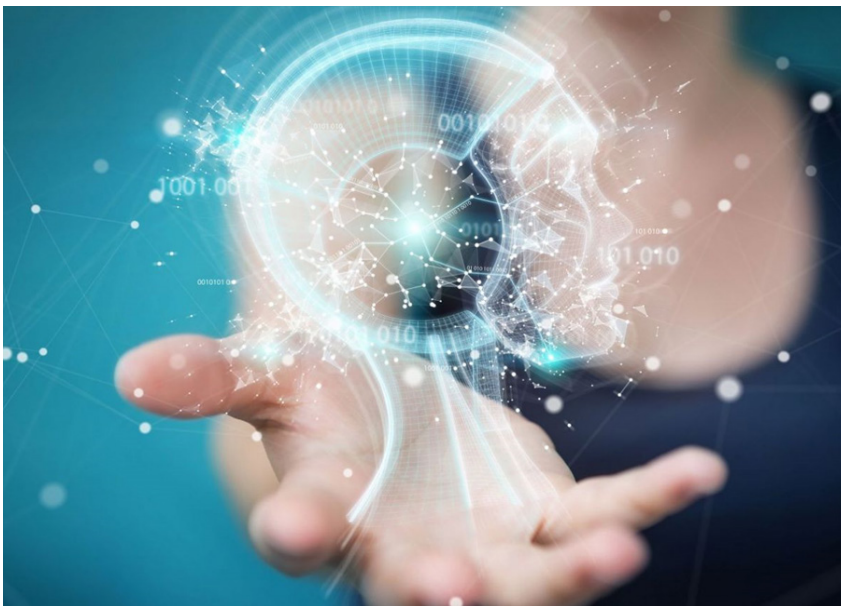


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### Solution

Advestis integrated the CC-FR Tailored Program, to benefit from a high-level support in intensive computing.

### Business Impact

Thanks to CRIANN high-level expertise in intensive computing, Advestis was able to significantly increase the power of its AdLearn algorithm. Individual and personalized support has also enabled the company to quickly become autonomous in the use of supercomputer.

### Benefits

This computing power enabled the company to:

- ✔ Significantly improve the calculation time of its AdLearn algorithm
- ✔ Accelerate the performance of its AdLearn algorithm through the parallelization of its code.

- › HPC, AI
- › Optimisation, Parallelization
- › Predictive Maintenance
- › Medical Research

› Industry Sector: Finance, Predictive Maintenance and Medical Research

› Technology: AI and HPC

#### Contact:

Dr Karim Azoum

Email: [Karim.azoum@teratec.fr](mailto:Karim.azoum@teratec.fr)

+33 7 62 74 03 60