In addition, even a single GPU-CPU framework provides advantages that multiple CPUs on their own do not offer due to the specialization in each chip.[[5]](https://en.wikipedia.org/wiki/General-purpose_computing_on_graphics_processing_units#cite_note-5)

Essentially, a GPGPU [pipeline](https://en.wikipedia.org/wiki/Graphics_pipeline) is a kind of [parallel processing](https://en.wikipedia.org/wiki/Parallel_computing) between one or more GPUs and CPUs that analyzes data as if it were in image or other graphic form. While GPUs operate at lower frequencies, they typically have many times the number of [cores](https://en.wikipedia.org/wiki/Multi-core_processor). Thus, GPUs can operate on pictures and graphical data effectively far faster than a traditional CPU. Migrating data into graphical form and then using the GPU to scan and analyze it can result in profound [speedup](https://en.wikipedia.org/wiki/Speedup).

GPGPU pipelines were first developed for better, more general graphics processing (e.g., for better shaders). These pipelines were found to fit [scientific computing](https://en.wikipedia.org/wiki/Scientific_computing) needs well, and have since been developed in this direction.