Central Processing Unit (CPU) works as the brain of the Computer that perform basic arithmetic, logical and input output operations specified by instructions of a Computer program. In terms of Computing power the CPU is the most important element of a Computer system. CPU now comes with a single and multi-core variant. Multi-core means having more than one processor units working side by side means that CPU can manage more than one instructions every second.

Intel and AMD are two most popular CPU manufacturer for desktop, laptops and servers while Apple, NVIDIA and Qual Comm are big smartphone and tablet CPU makers

GPU (Graphics Processing Unit) is a specialized electronic circuit designed to render 2D and 3D graphics together with a CPU. GPU also known as Graphics card in the Gamers culture. Now GPU are being harnessed more broadly to accelerate Computational workloads in areas such as financial modelling, cutting edge

scientific research. GPU creates lighting effects and transforms objects every time a 3D scene is redrawn. These are mathematically intensive tasks which otherwise, would put quite a strain on the CPU. Lifting this burden from the CPU frees up cycles which can be used for other jobs.

Architecturally, the CPU is composed with few cores and cache memory that can handle a few software threads at a time. In contrast a GPU is composed of 100 of cores that can handle thousands of threads simultaneously.

Tensor Processing Unit (TPU) is a custom built integrated circuit for machine learning and tailored for tensor-flow, Google open source machine learning framework. TPUs have been powering Google datacenters since 2015, however Google still uses CPU and GPU for other types of machine learning. TPU is 15 times to 30 times faster than contemporary GPU and CPU. Additionally the TPU is much more energy efficient.