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# Processor Architectures

<https://openai.com/blog/ai-and-compute/>

## Graphics Processing Units

Use cases

What was it designed for and why is it good at that job?

GPUs were initially designed for the processing of graphical data mainly for use in video games

Architectures

Nvidia

<https://www.nvidia.com/en-gb/data-center/volta-gpu-architecture/>

<https://www.nvidia.com/en-gb/data-center/tensorcore/>

<https://www.olcf.ornl.gov/wp-content/uploads/2018/12/summit_workshop_Volta-Architecture.pdf>

<https://images.nvidia.com/content/volta-architecture/pdf/volta-architecture-whitepaper.pdf>

AMD?

## Central Processing Units

Use cases

## FPGA

What was it designed for and why is it good at solving that problem?

Reconfigurable

## ASICs

This includes

NPU, VPU, etc

Application specific integrated circuit

What was it designed for and why is it good at solving that problem?

Intel has movidius and nervana

<https://www.tomshardware.com/uk/news/intel-announces-movidius-keem-bay-vpu>

<https://en.wikipedia.org/wiki/Vision_processing_unit>

<https://www.intel.ai/nnp-aisummit/>

<https://software.intel.com/en-us/devcloud/edge>

<https://www.movidius.com/technology>

<https://venturebeat.com/2019/11/12/intel-details-keem-bay-a-movidius-processor-for-computer-vision-at-the-edge/>

### VPU

Movidius

### TPU

<https://cloud.google.com/tpu/docs/system-architecture>

## Beyond

<https://phys.org/news/2018-10-brain-inspired-architecture-advance-ai.html>