17) GPU

CPU vs. GPU

- Central Processing Unit: built in OS & does serial (fast) operations
- Graphical Processing Unit: divide-conquers tasks & does parallel operations
- Our computer GPU → UI rendering, video playback
  Nvidia CUDA-GPU → scientific simulation, Deep learning
- <u>Why in DL</u>: ① excessive matrix multiplications ② train large models / experiments
- <u>Process</u>:   code [CPU]   ⇄   [GPU] calculation
                              model, data
                              output