1 Introduction

Nathan Choukroun labwork Google collab gpus

2 Code to run

!pip install numba import numba import numba.cuda as cuda print(numba.cuda.select$_{d}evice())print(numba

Loop through each available GPU device for i in range(len(cuda.gpus)): Select the GPU device device = cuda.gpus[i] device = cuda.select$_{d}evice(i)$

Get and print the device name print(f"Device i - Name:", device.name)

Get and print the compute capability print("Compute Capability:", device.compute$_{c}apability$)

Get total memory information free$_{m}em, total_{m}em = cuda.current_{c}ontext().get_{m}emory_{i}nfo()print(f"T$
$total_{m}em/(1024 * *2) : .2fMB")print(f"FreeMemory : free_{m}em/(1024 * *2) : .2fMB")$

Get additional device details print("Details:") print(f" Max Threads per Block: device.MAX$_{T}HREADS_{P}ER_{B}LOCK")print(f"MaxBlockDimensions :$
$device.MAX_{B}LOCK_{D}IM_{X}, device.MAX_{B}LOCK_{D}IM_{Y}, device.MAX_{B}LOCK_{D}IM_{Z}")print(f"MaxGr$
$device.MAX_{G}RID_{D}IM_{X}, device.MAX_{G}RID_{D}IM_{Y}, device.MAX_{G}RID_{D}IM_{Z}")print(f"WarpSize :$
$device.WARP_{S}IZE")print(f"MaxSharedMemoryperBlock : device.MAX_{S}HARED_{M}EMORY_{P}ER_{B}L$

Reset the device (optional) device.reset()

print("" + "-" * 40 + "")

3 Results

¡Managed Device 0¿ Device 0 - Name: b'Tesla T4' Compute Capability: (7, 5) Total Memory: 15102.06 MB Free Memory: 14999.06 MB Details: Max Threads per Block: 1024 Max Block Dimensions: 1024, 1024, 64 Max Grid Dimensions: 2147483647, 65535, 65535 Warp Size: 32 Max Shared Memory per Block: 48.00 KB