GPU_vs_CPU_various_machines.ods
WESmith 03/24/23

timing results using code implemented from: https://learnopencv.com/getting-started-opencv-cuda-module/
test video: pedestrians.mp4 from /usr/share/visionworks/sources/data/ in jetson nano Jetpack 4.3 installation
VIDEO PROPERTIES 960 X 540 PIXELS, 29.899 FPS, 419 FRAMES

								ALL TIMES IN SECONDS					FRAMES PER SECOND				SUMMARY		
machine	CPU	NUMBER OF THREADS	GPU	OS	RAM	openCV	GPU or CPU USED IN PROCESSING	reading	Pre-process	optical flow	Post-process	full pipeline	orig video fps	optical flow fps	full pipeline fps	RATIO OF MACHINE TO GPU: OPTICAL FLOW TIME ONLY	inverse of previous column	RATIO OF GPU TO MACHINE: FULL PIPELINE FPS	inverse of previous column
jetson nano	Quad-core ARM Cortex-A57 MPCore	4	NVIDIA Maxwell with 128 NVIDIA CUDA cores	Jetpack 4.3	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s	4.7.0	GPU	2.165	1.795	84.172	11.455	99.611	29.899	4.966	4.196	1	1	1	1
jetson nano	Quad-core ARM Cortex-A57 MPCore	4	NVIDIA Maxwell with 128 NVIDIA CUDA cores	Jetpack 4.3	4 GB 64-bit LPDDR4, 1600MHz 25.6 GB/s	4.7.0	CPU	1.566	0.61	227.848	12.302	242.345	29.899	1.835	1.725	2.706933422	0.36942172	2.43246377	0.4111058
Acer Aspire-E5-576G	Intel Core i5-8250U 4 x 1.6 GHz	8	N/A	Ubuntu 22.04	16 GB DDR3L	4.7.0	CPU	0.254	0.126	66.96	2.249	69.596	29.899	6.243	6.006	0.795513948	1.25704898	0.6986347	1.4313632
Raspberry Pi 4	Broadcom BCM2711, Quad core Cortex-A72 (ARM v8) 64-bit SoC @ 1.8GHz	4	N/A	bullseye	8GB LPDDR4-3200 SDRAM	4.7.0	CPU	2.774	1.007	172.218	13.837	189.857	29.899	2.427	2.202	2.046024806	0.48875263	1.90554042	0.5247855