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Core i5 8400 Xmas

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Automated Executive Summary

Core i5 8400 had the most wins, coming in first place for 43% of the tests.

Based on the geometric mean of all complete results, the fastest (Core i5) was 1.002x the speed of the slowest (Intel 8400). Core i5 8400 was 0.999x the speed of Core i5 and Intel 8400 was 0.999x the speed of Core i5 8400.

The results with the greatest spread from best to worst included:

Coremark (CoreMark Size 666 - Iterations Per Second) at 1.099x

oneDNN (Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU) at 1.073x

oneDNN (Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU) at 1.039x

VKMark (Resolution: 1920 x 1080) at 1.03x

OpenVINO (Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU) at 1.028x

oneDNN (Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU) at 1.025x

OpenVINO (Model: Person Detection 0106 FP16 - Device: CPU) at 1.025x

OpenVINO (Model: Face Detection 0106 FP16 - Device: CPU) at 1.023x

OpenVINO (Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU) at 1.023x

OpenVINO (Model: Person Detection 0106 FP16 - Device: CPU) at 1.019x.

Test Systems:

Core i5 8400

Core i5

Intel 8400

Processor: Intel Core i5-8400 @ 4.00GHz (6 Cores), Motherboard: MSI Z370M MORTAR (MS-7B54) v1.0 (1.80 BIOS), Chipset: Intel 8th Gen Core, Memory: 8GB, Disk: 512GB INTEL SSDPEKNW512G8, Graphics: MSI Intel UHD 630 3GB (1050MHz), Audio: Realtek ALC892, Monitor: VA2431, Network: Intel I219-V

OS: Ubuntu 20.04, Kernel: 5.9.0-050900rc7daily20200929-generic (x86_64) 20200928, Desktop: GNOME Shell 3.36.4, Display Server: X Server 1.20.8, Display Driver: modesetting 1.20.8, OpenGL: 4.6 Mesa 20.0.8, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-9-HskZEa/gcc-9-9.3.0/debian/tmp-nvptx/usr.hsa --enable-plugin --enable-shared --enable-threads=posix -host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
 Processor Notes: Scaling Governor: intel_pstate powersave - CPU Microcode: 0xde - Thermald 1.9.1
 Python Notes: Python 3.8.5

Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + I1f: Mitigation of PTE Inversion; VMX: conditional cache flushes SMT disabled + mds: Mitigation of Clear buffers; SMT disabled + meltdown: Mitigation of PTI + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swaps barriers and __user pointer sanitization + spectre_v2: Mitigation of Full generic retpoline IBPB: conditional IBRS_FW STIBP: disabled RSB filling + srbs: Mitigation of Microcode + tsx_async_abort: Not affected

	Core i5 8400	Core i5	Intel 8400
VkFFT (Benchmark Score)	1338	1339	1338
Normalized	99.93%	100%	99.93%
Standard Deviation	0.1%	0.1%	0.2%
VkResample - 2x - Double (ms)	1016	1005	1012
Normalized	98.9%	100%	99.28%
Standard Deviation	0.3%	0.6%	0.6%
VkResample - 2x - Single (ms)	450.941	444.036	443.158
Normalized	98.27%	99.8%	100%
Standard Deviation	0.2%	0.1%	0.2%
VKMark - 1920 x 1080 (VKMark Score)	693	685	673
Normalized	100%	98.85%	97.11%
Standard Deviation	0.6%	0.6%	0.3%
CLOMP - Static OMP Speedup (Speedup)	2	2	2
Timed HMMer Search - P.D.S (sec)	120.474	120.526	120.467
Normalized	99.99%	99.95%	100%
Standard Deviation	0.1%	0.2%	0.1%
simdjson - Kostya (GB/s)	0.64	0.64	0.64
Standard Deviation	0%	0%	0%
simdjson - LargeRand (GB/s)	0.39	0.39	0.39
Standard Deviation	0%	0%	0%
simdjson - PartialTweets (GB/s)	0.58	0.58	0.58
Standard Deviation	0%	0%	0%

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simdjson - DistinctUserID (GB/s)	0.6	0.6	0.6
Standard Deviation	0%	0%	0%
Crafty - Elapsed Time (Nodes/s)	7770858	7774194	7803190
Normalized	99.59%	99.63%	100%
Standard Deviation	0.1%	0.1%	0.3%
oneDNN - IP Shapes 1D - f32 - CPU (ms)	5.38968	5.41570	5.41236
Normalized	100%	99.52%	99.58%
Standard Deviation	0.3%	0.8%	1.2%
oneDNN - IP Shapes 3D - f32 - CPU (ms)	7.73545	7.21060	7.22857
Normalized	93.22%	100%	99.75%
Standard Deviation	0.2%	0.5%	0.4%
oneDNN - IP Shapes 1D - u8s8f32 - CPU (ms)	3.65628	3.65594	3.65339
Normalized	99.92%	99.93%	100%
Standard Deviation	0.2%	0.1%	0.1%
oneDNN - IP Shapes 3D - u8s8f32 - CPU (ms)	2.53120	2.56736	2.57074
Normalized	100%	98.59%	98.46%
Standard Deviation	0.4%	0.6%	1.3%
oneDNN - C.B.S.A - f32 - CPU (ms)	19.7215	19.5898	19.5857
Normalized	99.31%	99.98%	100%
Standard Deviation	0.2%	0.2%	0.1%
oneDNN - D.B.s - f32 - CPU (ms)	7.34702	7.29755	7.31730
Normalized	99.33%	100%	99.73%
Standard Deviation	0.2%	0.2%	0.1%
oneDNN - D.B.s - f32 - CPU (ms)	9.29501	9.28984	9.32642
Normalized	99.94%	100%	99.61%
Standard Deviation	0.4%	0.2%	0.1%
oneDNN - C.B.S.A - u8s8f32 - CPU (ms)	15.0649	14.8151	14.7794
Normalized	98.1%	99.76%	100%
Standard Deviation	0.5%	0.1%	0.4%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	9.42641	9.42142	9.43072
Normalized	99.95%	100%	99.9%
Standard Deviation	0.1%	0.1%	0.1%
oneDNN - D.B.s - u8s8f32 - CPU (ms)	7.17999	7.17695	7.16335
Normalized	99.77%	99.81%	100%
Standard Deviation	0%	0.1%	0.1%
oneDNN - R.N.N.T - f32 - CPU (ms)	4505	4448	4481
Normalized	98.73%	100%	99.27%
Standard Deviation	2%	1.7%	2.6%
oneDNN - R.N.N.I - f32 - CPU (ms)	2537	2577	2578
Normalized	100%	98.45%	98.39%
Standard Deviation	1.9%	0.1%	1.9%
oneDNN - R.N.N.T - u8s8f32 - CPU (ms)	4667	4493	4595
Normalized	96.26%	100%	97.77%
Standard Deviation	0.1%	0.9%	3%
oneDNN - R.N.N.I - u8s8f32 - CPU (ms)	2589	2611	2601
Normalized	100%	99.16%	99.52%
Standard Deviation	0.2%	2.9%	0.7%
oneDNN - M.M.B.S.T - f32 - CPU (ms)	3.65106	3.62564	3.62644
Normalized	99.3%	100%	99.98%
Standard Deviation	0.2%	0.1%	0.2%
oneDNN - R.N.N.T - bf16bf16bf16 - CPU (ms)	4618	4648	4617
Normalized	99.98%	99.33%	100%
Standard Deviation	2.5%	2.3%	0.8%
oneDNN - R.N.N.I - bf16bf16bf16 - CPU (ms)	2559	2601	2624
Normalized	100%	98.41%	97.54%

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	Standard Deviation	1.2%	1.1%	1.8%
oneDNN - M.M.B.S.T - u8s8f32 - CPU (ms)	4.75281	4.75478	4.75472	
	Normalized	100%	99.96%	99.96%
	Standard Deviation	0%	0.1%	0.2%
rav1e - 1 (FPS)	0.372	0.372	0.373	
	Normalized	99.73%	99.73%	100%
	Standard Deviation	0.3%	0.3%	0.2%
rav1e - 5 (FPS)	1.069	1.071	1.072	
	Normalized	99.72%	99.91%	100%
	Standard Deviation	0.3%	0.2%	0.1%
rav1e - 6 (FPS)	1.424	1.428	1.429	
	Normalized	99.65%	99.93%	100%
	Standard Deviation	0.1%	0%	0.1%
rav1e - 10 (FPS)	3.175	3.178	3.179	
	Normalized	99.87%	99.97%	100%
	Standard Deviation	0.2%	0.1%	0.1%
Coremark - CoreMark Size 666 - I.P.S (Iterations/Sec)	163871	161388	149110	
	Normalized	100%	98.48%	90.99%
	Standard Deviation	0.8%	3.9%	1.9%
Stockfish - Total Time (Nodes/s)	10181368	10184400	10290142	
	Normalized	98.94%	98.97%	100%
	Standard Deviation	1.3%	0.7%	2.3%
asmFish - 1.H.M.2.D (Nodes/s)	14573443	14660230	14540504	
	Normalized	99.41%	100%	99.18%
	Standard Deviation	1%	2.8%	2%
Timed Clash Compilation - Time To Compile (sec)	243.887	243.900	244.365	
	Normalized	100%	99.99%	99.8%
	Standard Deviation	0.9%	1%	0.8%
Timed FFmpeg Compilation - Time To Compile (sec)	97.363	97.435	97.203	
	Normalized	99.84%	99.76%	100%
	Standard Deviation	0.1%	0.2%	0%
Build2 - Time To Compile (sec)	216.313	216.911	216.707	
	Normalized	100%	99.72%	99.82%
	Standard Deviation	0.8%	0.2%	0.8%
Timed Eigen Compilation - Time To Compile (sec)	83.397	83.551	83.454	
	Normalized	100%	99.82%	99.93%
	Standard Deviation	0.2%	0.3%	0.1%
Monkey Audio Encoding - WAV To APE (sec)	12.312	12.342	12.347	
	Normalized	100%	99.76%	99.72%
	Standard Deviation	0.7%	0.6%	0.6%
Ogg Audio Encoding - WAV To Ogg (sec)	22.557	22.609	22.594	
	Normalized	100%	99.77%	99.84%
	Standard Deviation	0.1%	0.2%	0.3%
Opus Codec Encoding - WAV To Opus (sec)	9.637	9.638	9.632	
	Encode (sec)			
	Normalized	99.95%	99.94%	100%
	Standard Deviation	0.3%	0.3%	0.3%
Node.js V8 Web Tooling Benchmark (runs/s)	11.37	11.37	11.33	
	Normalized	100%	100%	99.65%
	Standard Deviation	0.4%	2.8%	1.5%

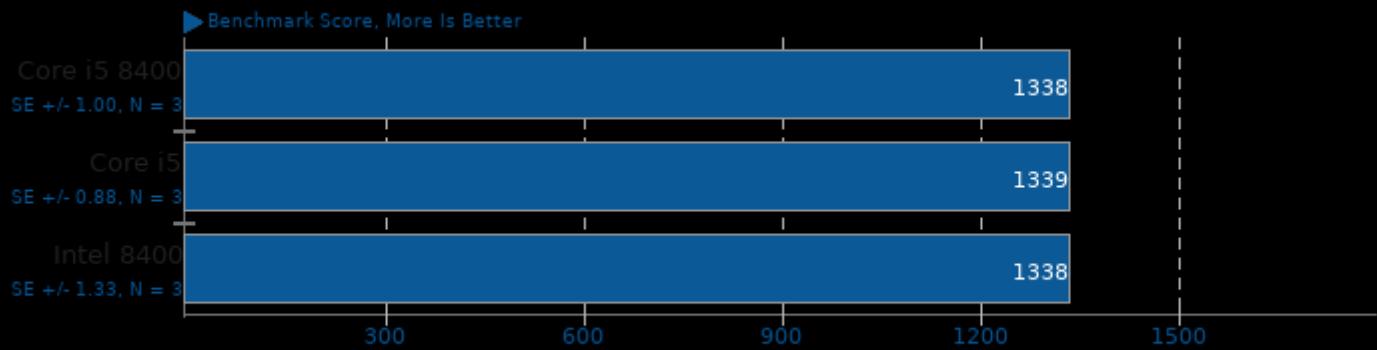
ASTC Encoder - Fast (sec)	8.16	8.18	8.20
Normalized	100%	99.76%	99.51%
Standard Deviation	0.3%	0.2%	0.2%
ASTC Encoder - Medium (sec)	9.25	9.26	9.26
Normalized	100%	99.89%	99.89%
Standard Deviation	0.1%	0.1%	0.1%
ASTC Encoder - Thorough (sec)	58.92	58.95	58.97
Normalized	100%	99.95%	99.92%
Standard Deviation	0%	0.1%	0%
ASTC Encoder - Exhaustive (sec)	465.77	465.97	466.35
Normalized	100%	99.96%	99.88%
Standard Deviation	0%	0%	0%
SQLite Speedtest - Timed Time - Size 1,000 (sec)	69.140	69.274	69.498
Normalized	100%	99.81%	99.48%
Standard Deviation	0.9%	0.4%	0.3%
NCNN - CPU - mobilenet (ms)	21.19	21.07	21.10
Normalized	99.43%	100%	99.86%
Standard Deviation	0.3%	0.2%	0.3%
NCNN - CPU-v2-v2 - mobilenet-v2 (ms)	5.66	5.72	5.66
Normalized	100%	98.95%	100%
Standard Deviation	0.4%	1.3%	0.7%
NCNN - CPU-v3-v3 - mobilenet-v3 (ms)	4.71	4.76	4.73
Normalized	100%	98.95%	99.58%
Standard Deviation	0.4%	1%	0.3%
NCNN - CPU - shufflenet-v2 (ms)	6.48	6.51	6.47
Normalized	99.85%	99.39%	100%
Standard Deviation	0.5%	1.2%	0.6%
NCNN - CPU - mnasnet (ms)	4.77	4.76	4.72
Normalized	98.95%	99.16%	100%
Standard Deviation	1.1%	1.2%	0.7%
NCNN - CPU - efficientnet-b0 (ms)	7.74	7.73	7.70
Normalized	99.48%	99.61%	100%
Standard Deviation	0.7%	0.4%	0.2%
NCNN - CPU - blazeface (ms)	1.96	1.97	1.96
Normalized	100%	99.49%	100%
Standard Deviation	0.3%	0.3%	0.3%
NCNN - CPU - googlenet (ms)	17.75	17.71	17.73
Normalized	99.77%	100%	99.89%
Standard Deviation	0.2%	0.2%	0.3%
NCNN - CPU - vgg16 (ms)	68.55	68.46	68.67
Normalized	99.87%	100%	99.69%
Standard Deviation	0.1%	0%	0.1%
NCNN - CPU - resnet18 (ms)	17.92	17.91	17.91
Normalized	99.94%	100%	100%
Standard Deviation	0.1%	0.1%	0.2%
NCNN - CPU - alexnet (ms)	13.97	13.95	13.97
Normalized	99.86%	100%	99.86%
Standard Deviation	0.1%	0.2%	0.1%
NCNN - CPU - resnet50 (ms)	36.36	36.29	36.27
Normalized	99.75%	99.94%	100%
Standard Deviation	0.2%	0.1%	0.1%
NCNN - CPU - yolov4-tiny (ms)	31.17	31.11	31.11
Normalized	99.81%	100%	100%
Standard Deviation	0.1%	0.1%	0.1%

NCNN - CPU - squeezenet_ssd (ms)	28.61	28.60	28.63
Normalized	99.97%	100%	99.9%
Standard Deviation	0.1%	0.1%	0.1%
NCNN - CPU - regnety_400m (ms)	13.01	13.03	12.98
Normalized	99.77%	99.62%	100%
Standard Deviation	0.8%	0.8%	0.5%
NCNN - Vulkan GPU - mobilenet (ms)	21.09	21.09	21.15
Normalized	100%	100%	99.72%
Standard Deviation	0.1%	0.1%	0%
NCNN - Vulkan GPU-v2-v2 - mobilenet-v2	5.71	5.72	5.71
Normalized	100%	99.83%	100%
Standard Deviation	0.1%	0.2%	0.1%
NCNN - Vulkan GPU-v3-v3 - mobilenet-v3	4.73	4.75	4.72
Normalized	99.79%	99.37%	100%
Standard Deviation	0.1%	0.2%	0.3%
NCNN - Vulkan GPU - shufflenet-v2 (ms)	6.47	6.48	6.51
Normalized	100%	99.85%	99.39%
Standard Deviation	0.3%	0.5%	0.3%
NCNN - Vulkan GPU - efficientnet-b0 (ms)	7.72	7.69	7.70
Normalized	99.61%	100%	99.87%
Standard Deviation	0.4%	0.2%	0.1%
NCNN - Vulkan GPU - blazeface (ms)	1.96	1.95	1.96
Normalized	99.49%	100%	99.49%
Standard Deviation	0.6%	0.3%	0.5%
NCNN - Vulkan GPU - googlenet (ms)	17.77	17.74	17.72
Normalized	99.72%	99.89%	100%
Standard Deviation	0%	0.2%	0.1%
NCNN - Vulkan GPU - vgg16 (ms)	68.58	68.50	68.50
Normalized	99.88%	100%	100%
Standard Deviation	0.2%	0.2%	0%
NCNN - Vulkan GPU - resnet18 (ms)	17.92	17.91	17.90
Normalized	99.89%	99.94%	100%
Standard Deviation	0.3%	0.2%	0.1%
NCNN - Vulkan GPU - alexnet (ms)	13.97	13.97	13.98
Normalized	100%	100%	99.93%
Standard Deviation	0%	0.2%	0.3%
NCNN - Vulkan GPU - resnet50 (ms)	36.36	36.28	36.28
Normalized	99.78%	100%	100%
Standard Deviation	0.2%	0.1%	0.1%
NCNN - Vulkan GPU - yolov4-tiny (ms)	31.13	31.10	31.11
Normalized	99.9%	100%	99.97%
Standard Deviation	0.3%	0%	0.1%
NCNN - Vulkan GPU - squeezenet_ssd (ms)	28.63	28.55	28.64
Normalized	99.72%	100%	99.69%
Standard Deviation	0.2%	0.1%	0.1%
NCNN - Vulkan GPU - regnety_400m (ms)	13.03	12.89	12.99
Normalized	98.93%	100%	99.23%
Standard Deviation	0.7%	0.3%	0.6%
NCNN - Vulkan GPU - mnasnet (ms)	4.71	4.73	4.76
Normalized	100%	99.58%	98.95%
Standard Deviation	0.3%	0.1%	0.1%
OpenVINO - F.D.O.F - CPU (FPS)	1.71	1.75	1.73
Normalized	97.71%	100%	98.86%
Standard Deviation	2.5%	2.8%	2.9%
OpenVINO - F.D.O.F - CPU (ms)	1694	1682	1694

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	Normalized	99.31%	100%	99.29%
	Standard Deviation	0.6%	1%	1%
OpenVINO - F.D.O.F - CPU (FPS)	1.68	1.67	1.66	
	Normalized	100%	99.4%	98.81%
	Standard Deviation	0.3%	2.8%	2.7%
OpenVINO - F.D.O.F - CPU (ms)	1697	1754	1777	
	Normalized	100%	96.74%	95.53%
	Standard Deviation	0.6%	6.9%	7.2%
OpenVINO - P.D.O.F - CPU (FPS)	1.05	1.04	1.03	
	Normalized	100%	99.05%	98.1%
	Standard Deviation	2.9%	1.5%	2.8%
OpenVINO - P.D.O.F - CPU (ms)	2758	2769	2827	
	Normalized	100%	99.62%	97.57%
	Standard Deviation	0.4%	1.1%	5.2%
OpenVINO - P.D.O.F - CPU (FPS)	1.03	1.02	1.03	
	Normalized	100%	99.03%	100%
	Standard Deviation	0%	1.5%	1.5%
OpenVINO - P.D.O.F - CPU (ms)	2830	2798		
	Normalized	99.84%	98.88%	100%
	Standard Deviation	0.4%	1.9%	1.1%
OpenVINO - A.G.R.R.O.F - CPU (FPS)	3845	3863	3932	
	Normalized	97.79%	98.24%	100%
	Standard Deviation	2.5%	1.3%	0.9%
OpenVINO - A.G.R.R.O.F - CPU (ms)	0.73	0.72	0.74	
	Normalized	98.63%	100%	97.3%
	Standard Deviation	0%	0.8%	1.4%
OpenVINO - A.G.R.R.O.F - CPU (FPS)	3891	3866		3889
	Normalized	100%	99.35%	99.94%
	Standard Deviation	0.7%	0.3%	2.9%
OpenVINO - A.G.R.R.O.F - CPU (ms)	0.73	0.73	0.74	
	Normalized	100%	100%	98.65%
	Standard Deviation	0.8%	0.8%	0%
PHPBench - P.B.S (Score)	671755	671985	668796	
	Normalized	99.97%	100%	99.53%
	Standard Deviation	0.1%	0.2%	0.3%
WavPack Audio Encoding - WAV To WavPack (sec)	16.252	16.283		16.262
	Normalized	100%	99.81%	99.94%
	Standard Deviation	0%	0.4%	0%
Unpacking Firefox - firefox-84.0.source.tar.xz (sec)	20.822	20.827	20.895	
	Normalized	100%	99.98%	99.65%
	Standard Deviation	0.4%	0.3%	0.3%
BRL-CAD - V.P.M (VGR Performance Metric)	62090	62257		
	Normalized	99.73%	100%	

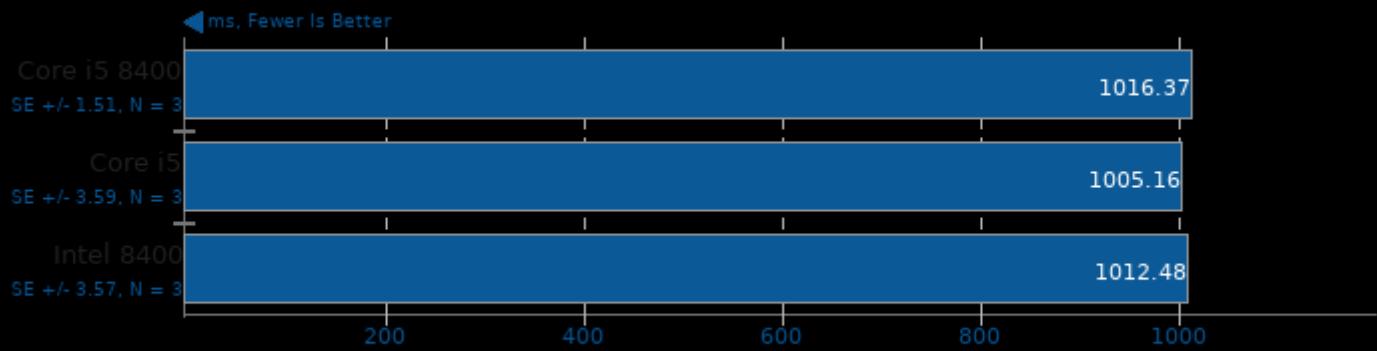
VkFFT 1.1.1



1. (CXX) g++ options: -O3 -pthread

VkResample 1.0

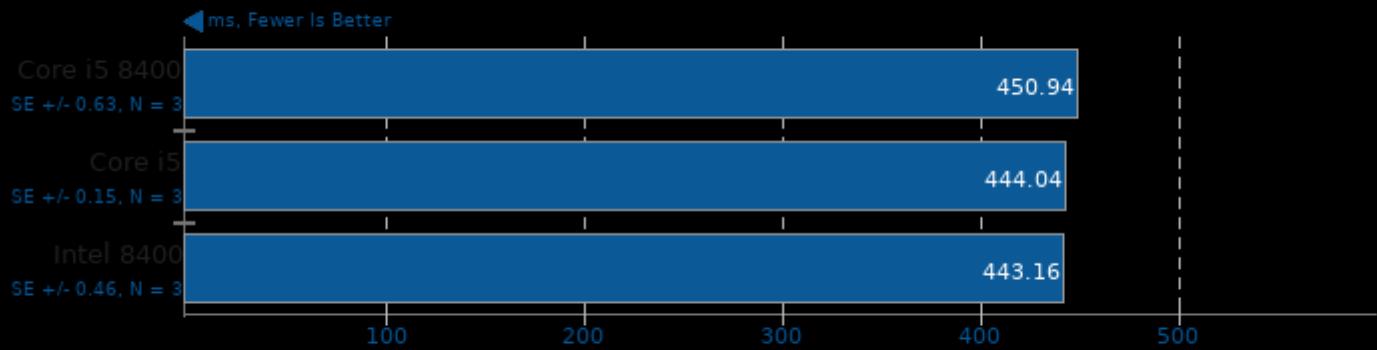
Upscale: 2x - Precision: Double



1. (CXX) g++ options: -O3 -pthread

VkResample 1.0

Upscale: 2x - Precision: Single

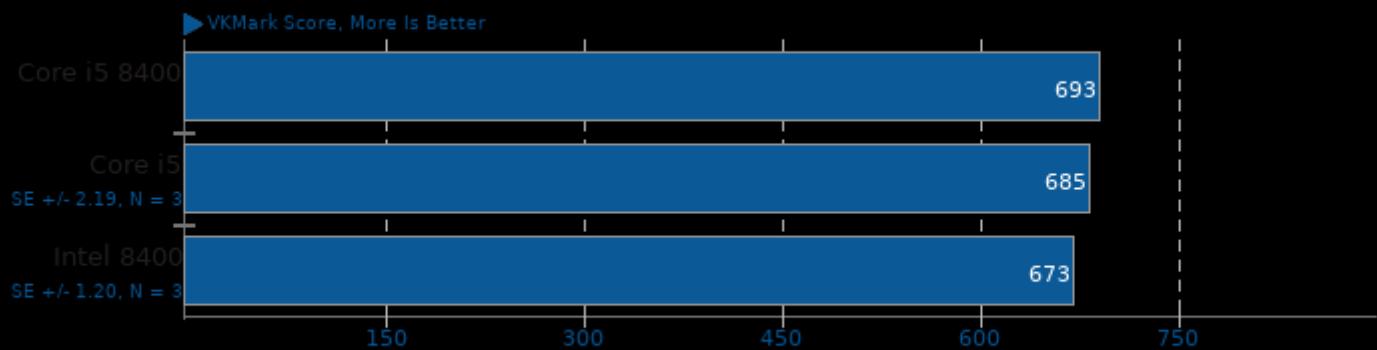


1. (CXX) g++ options: -O3 -pthread

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VKMark 2020-05-21

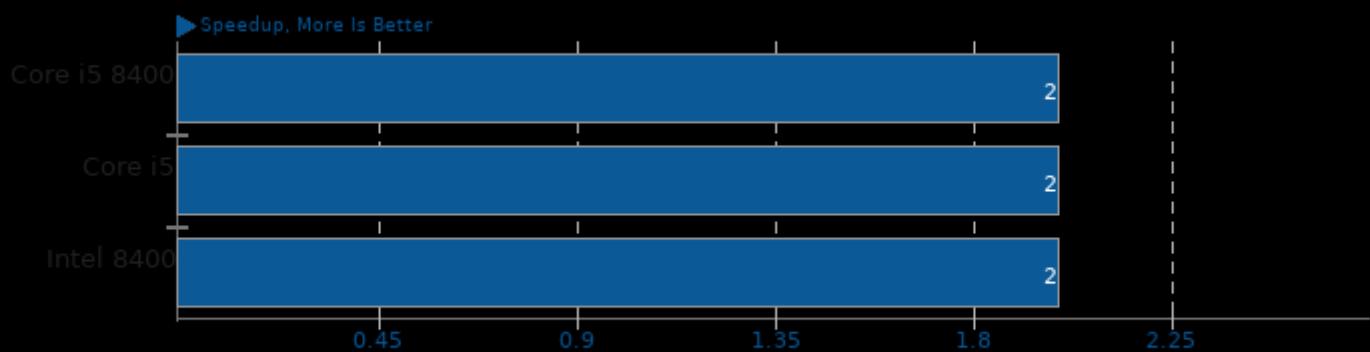
Resolution: 1920 x 1080



1. (CXX) g++ options: -pthread -lidl -pipe -std=c++14 -MD -MQ -MF

CLOMP 1.2

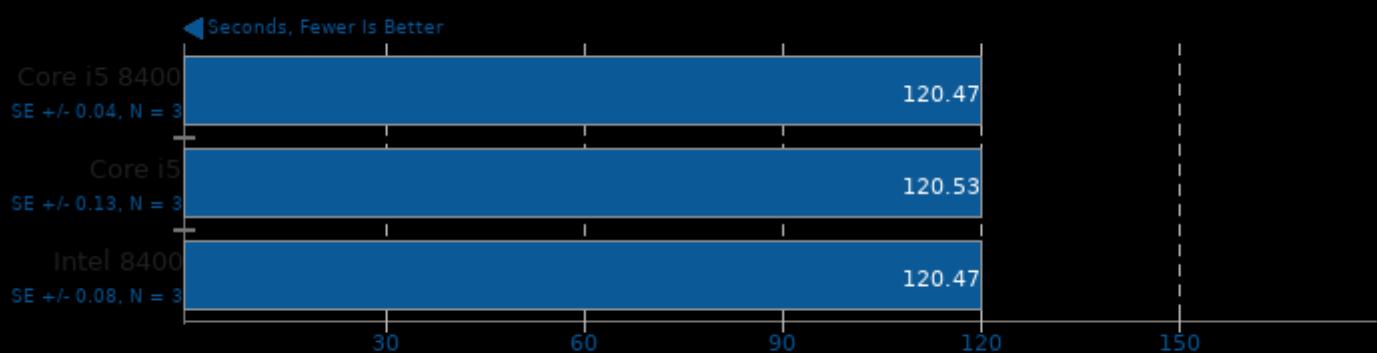
Static OMP Speedup



1. (CC) gcc options: -fopenmp -O3 -lm

Timed HMMer Search 3.3.1

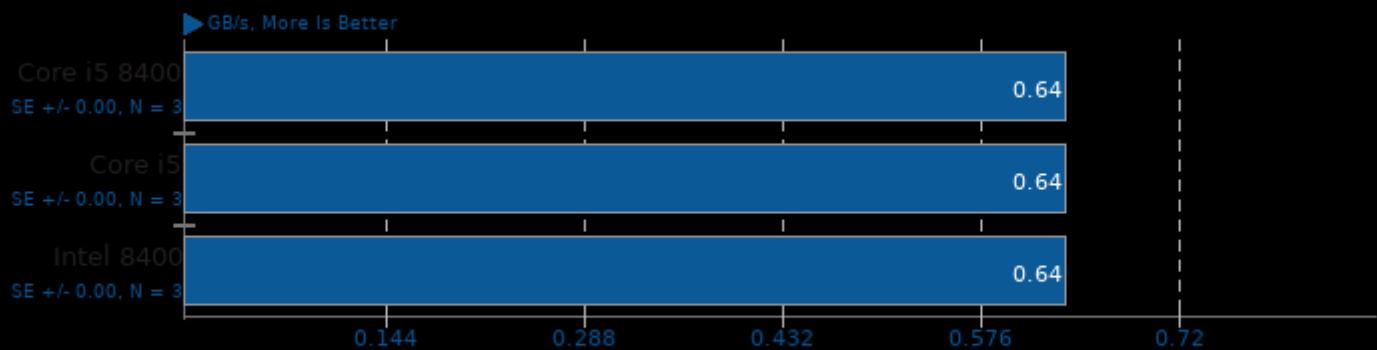
Pfam Database Search



1. (CC) gcc options: -O3 -pthread -lhmmmer -leasel -lm

simdjson 0.7.1

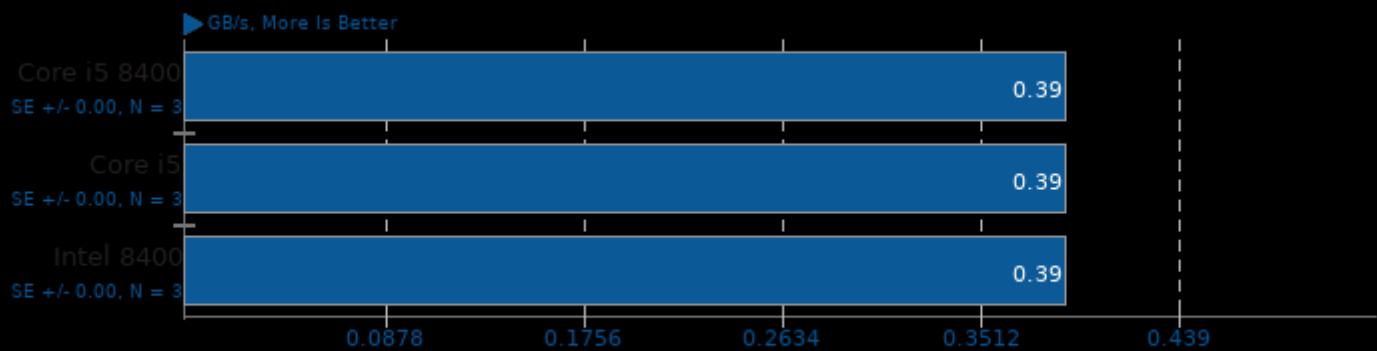
Throughput Test: Kostya



1. (CXX) g++ options: -O3 -pthread

simdjson 0.7.1

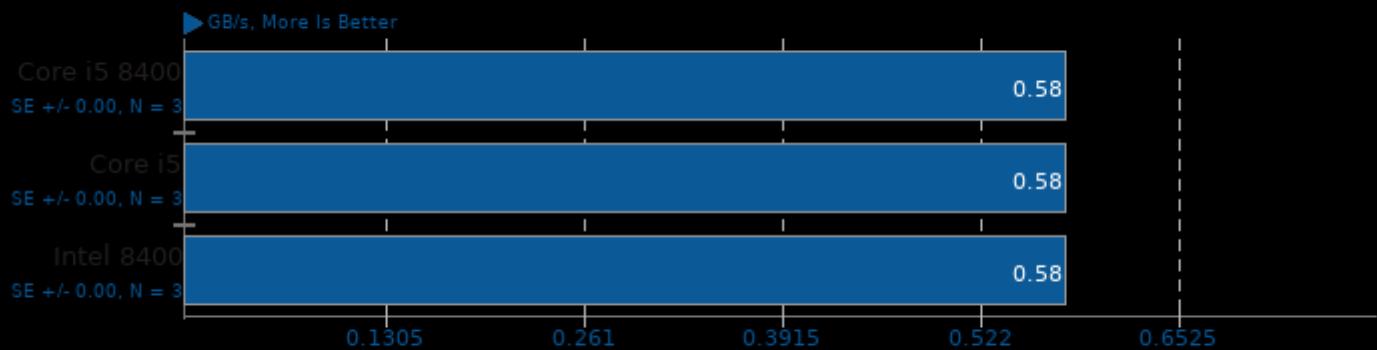
Throughput Test: LargeRandom



1. (CXX) g++ options: -O3 -pthread

simdjson 0.7.1

Throughput Test: PartialTweets

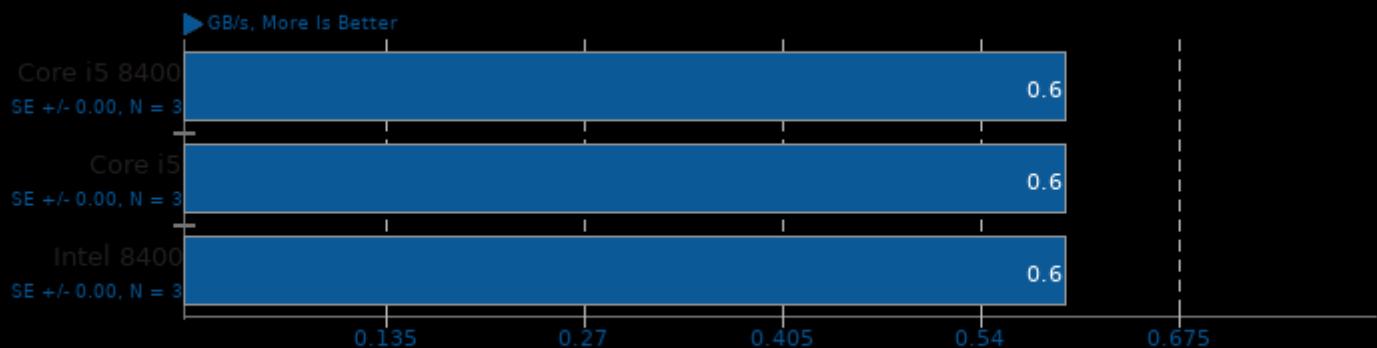


1. (CXX) g++ options: -O3 -pthread

Core i5 8400 Xmas

simdjson 0.7.1

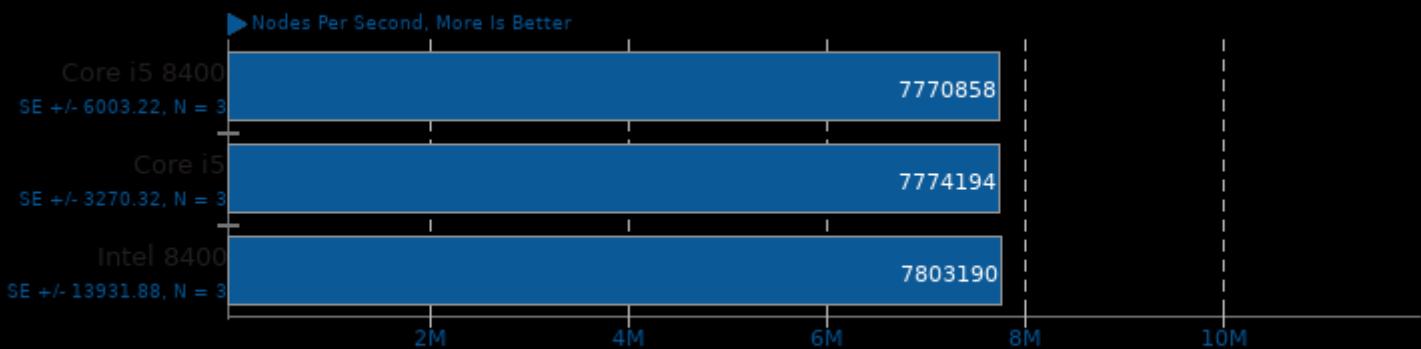
Throughput Test: DistinctUserID



1. (CXX) g++ options: -O3 -pthread

Crafty 25.2

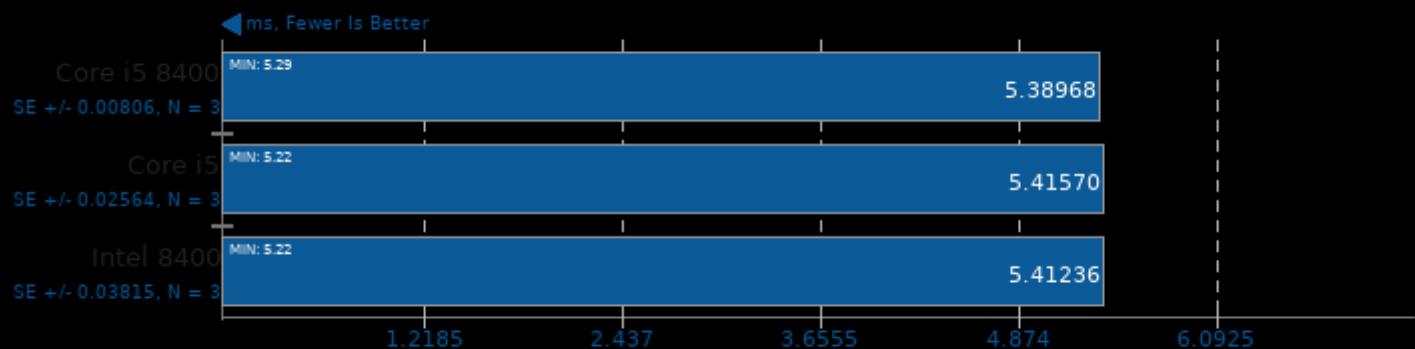
Elapsed Time



1. (CC) gcc options: -pthread -stdc++ -fprofile-use -lm

oneDNN 2.0

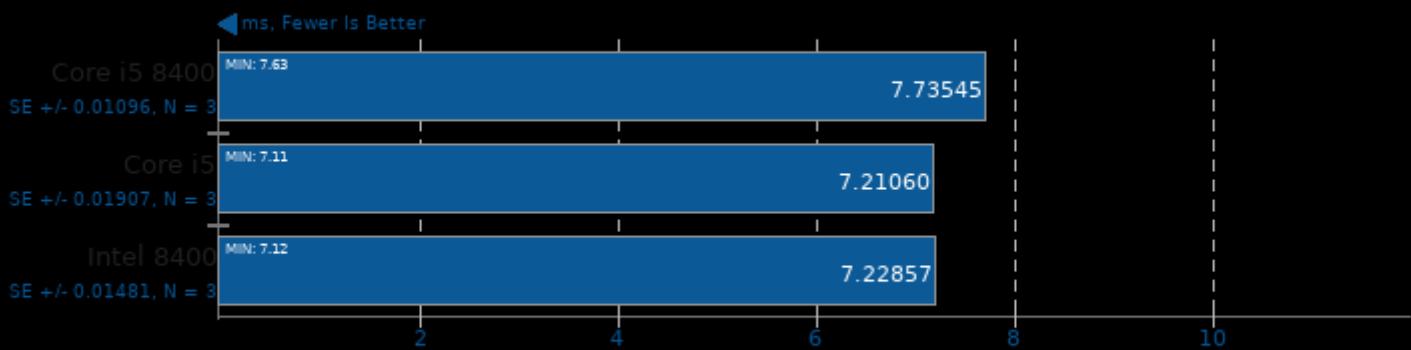
Harness: IP Shapes 1D - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -pthread

oneDNN 2.0

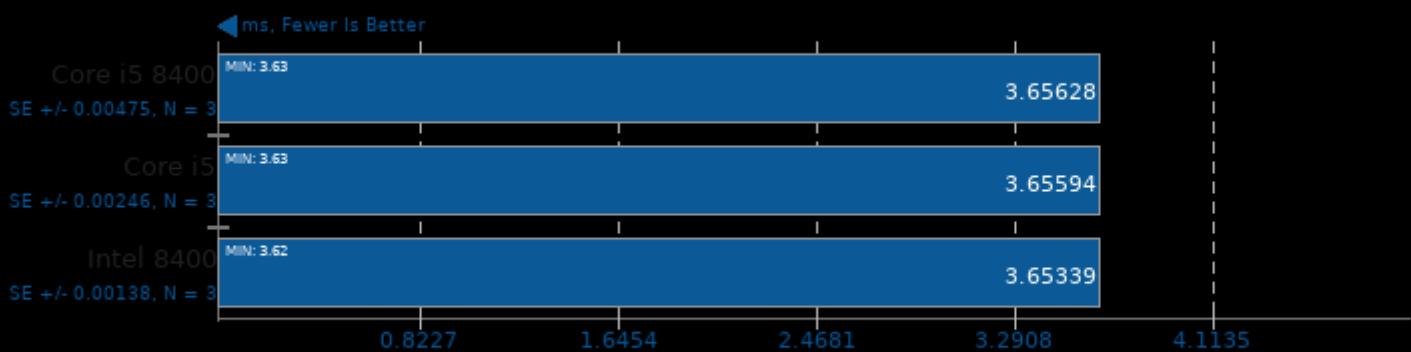
Harness: IP Shapes 3D - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

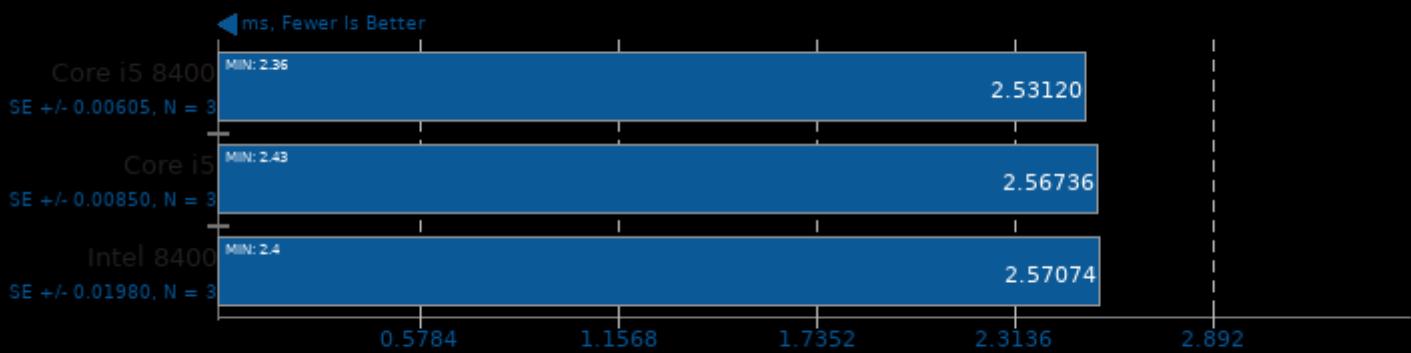
Harness: IP Shapes 1D - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

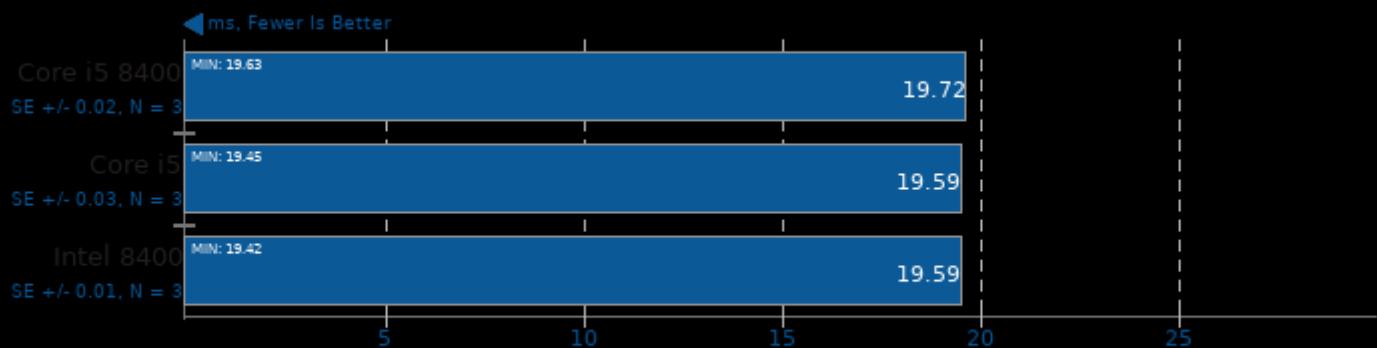
Harness: IP Shapes 3D - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

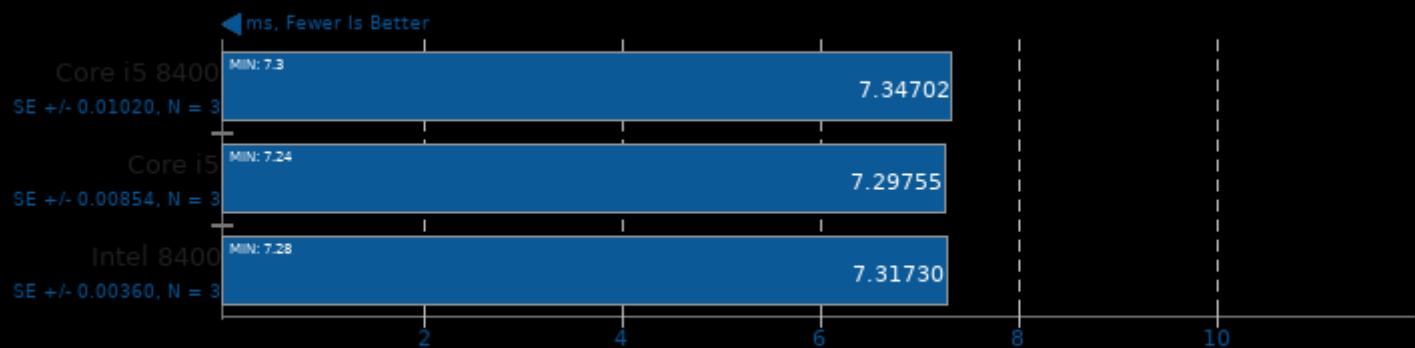
Harness: Convolution Batch Shapes Auto - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

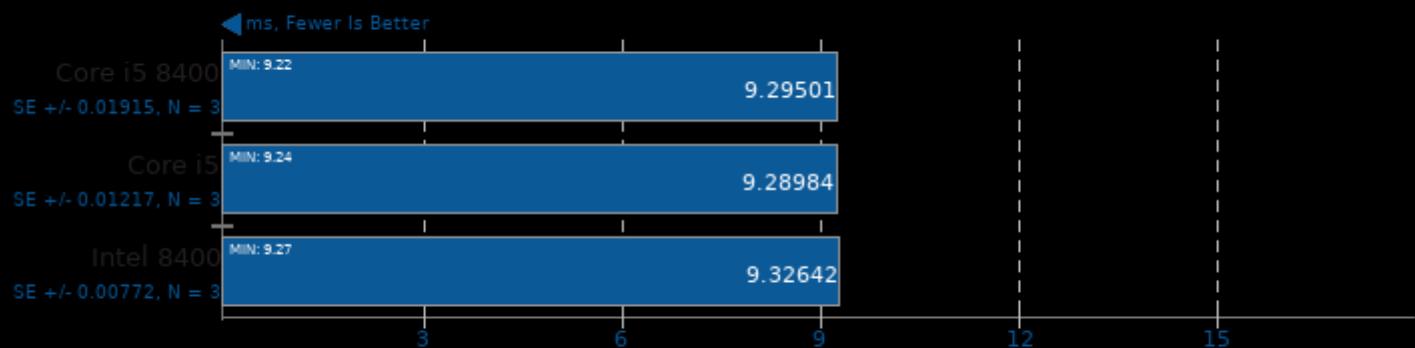
Harness: Deconvolution Batch shapes_1d - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

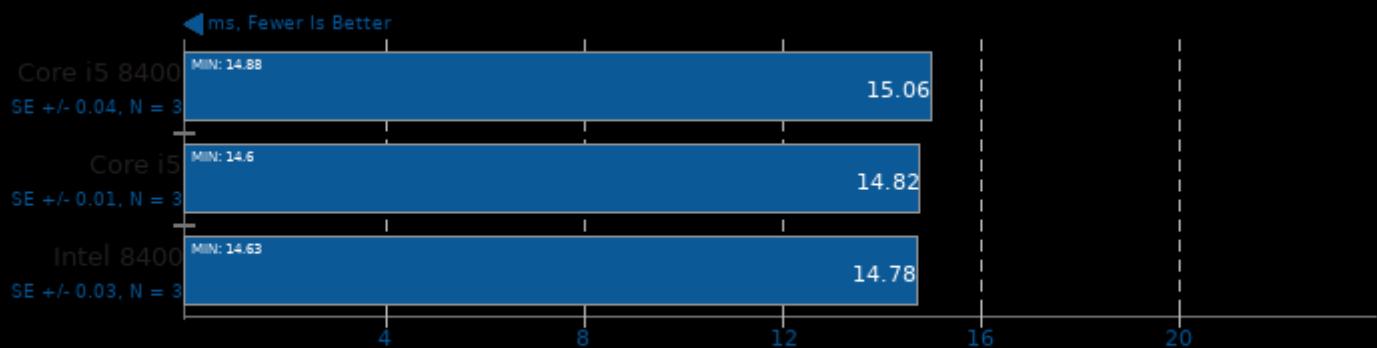
Harness: Deconvolution Batch shapes_3d - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

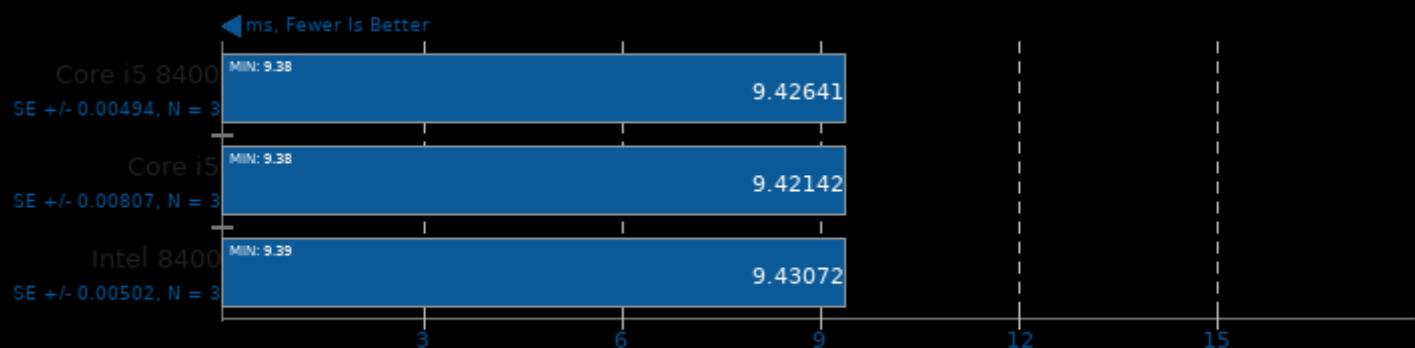
Harness: Convolution Batch Shapes Auto - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

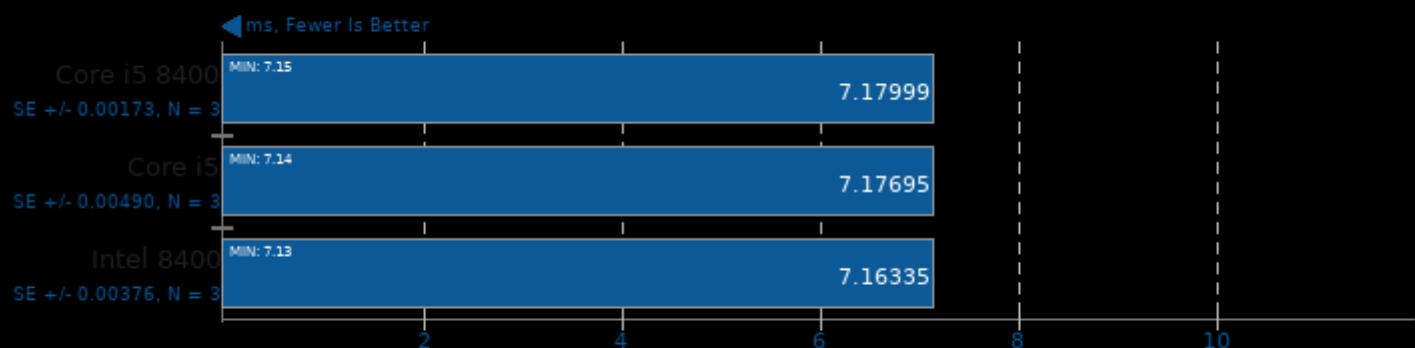
Harness: Deconvolution Batch shapes_1d - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

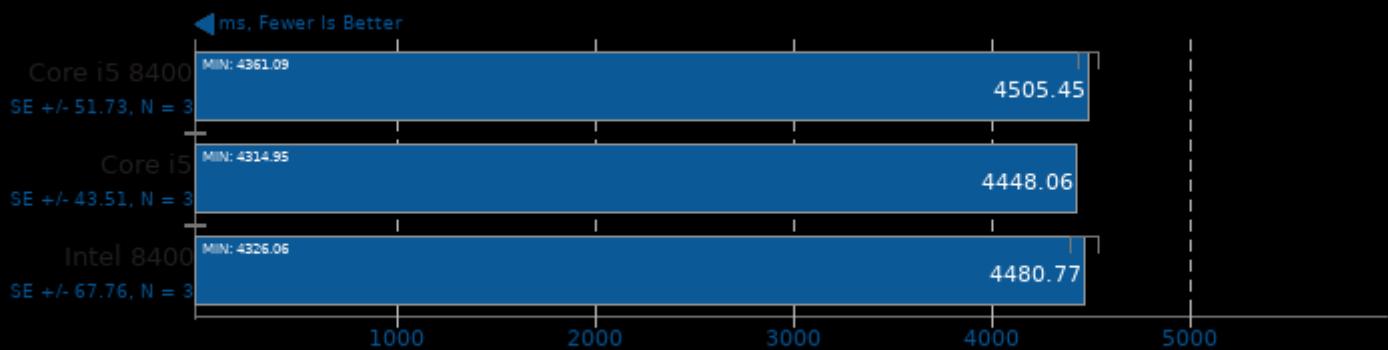
Harness: Deconvolution Batch shapes_3d - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

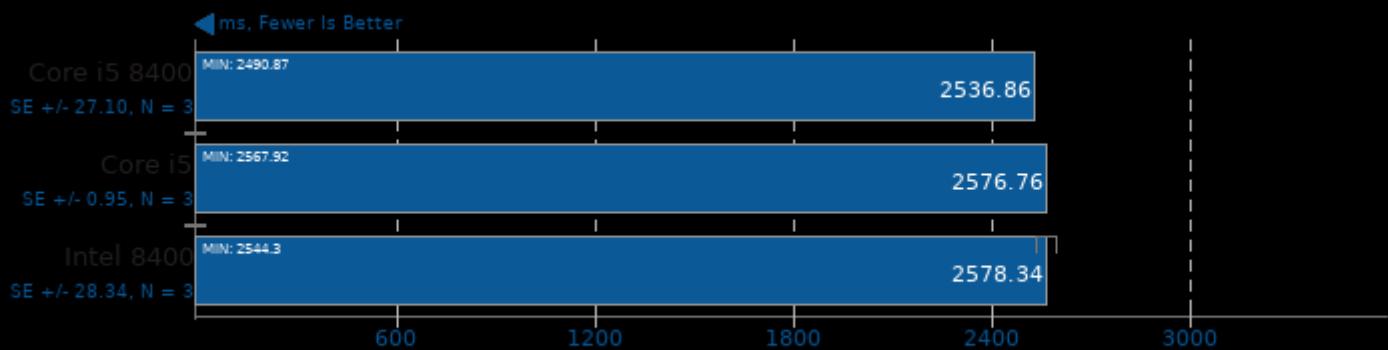
Harness: Recurrent Neural Network Training - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

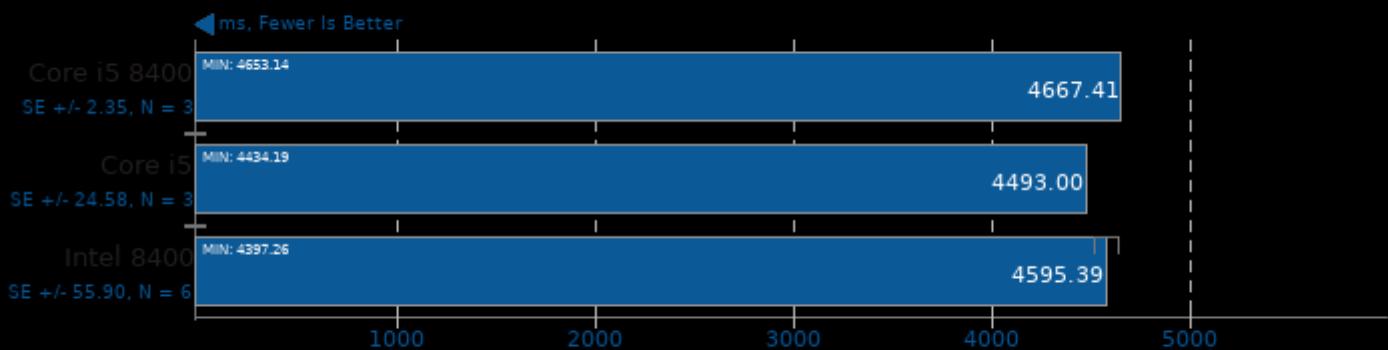
Harness: Recurrent Neural Network Inference - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

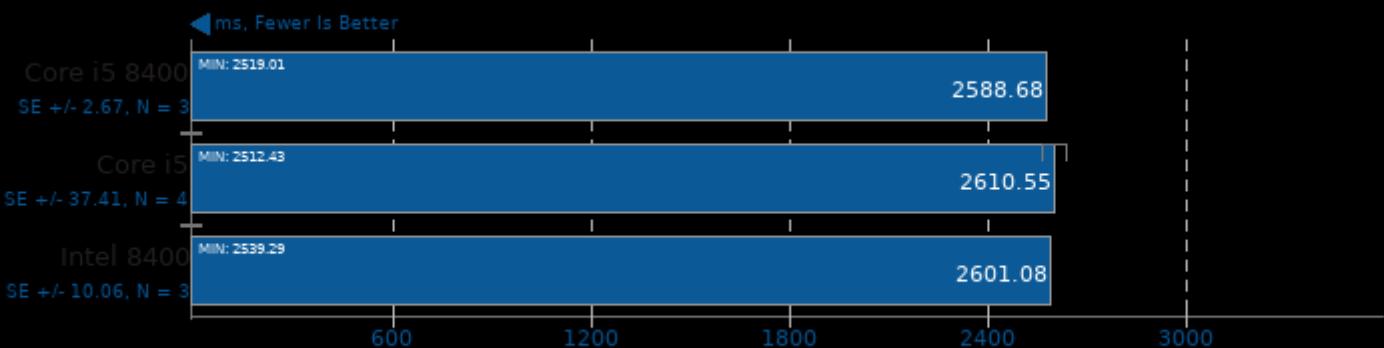
Harness: Recurrent Neural Network Training - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

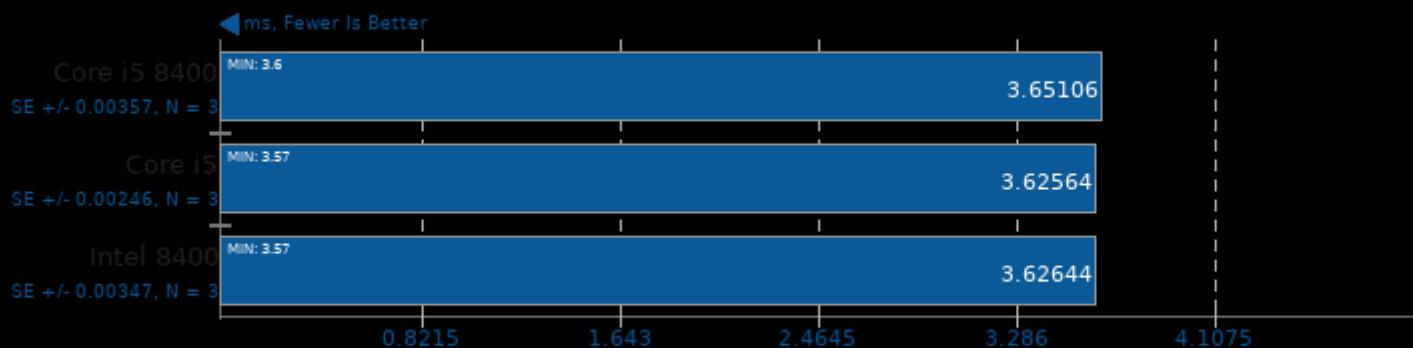
Harness: Recurrent Neural Network Inference - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

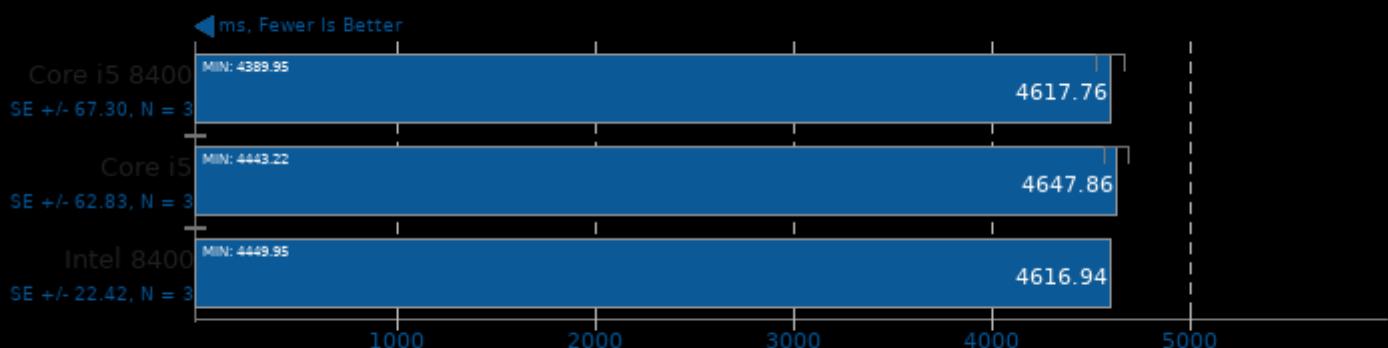
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

Harness: Recurrent Neural Network Training - Data Type: bf16bf16bf16 - Engine: CPU

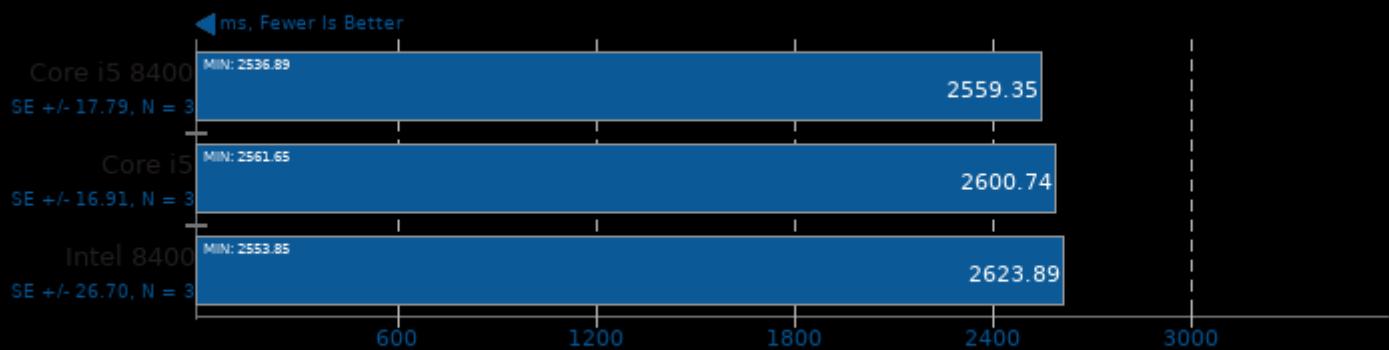


1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

Core i5 8400 Xmas

oneDNN 2.0

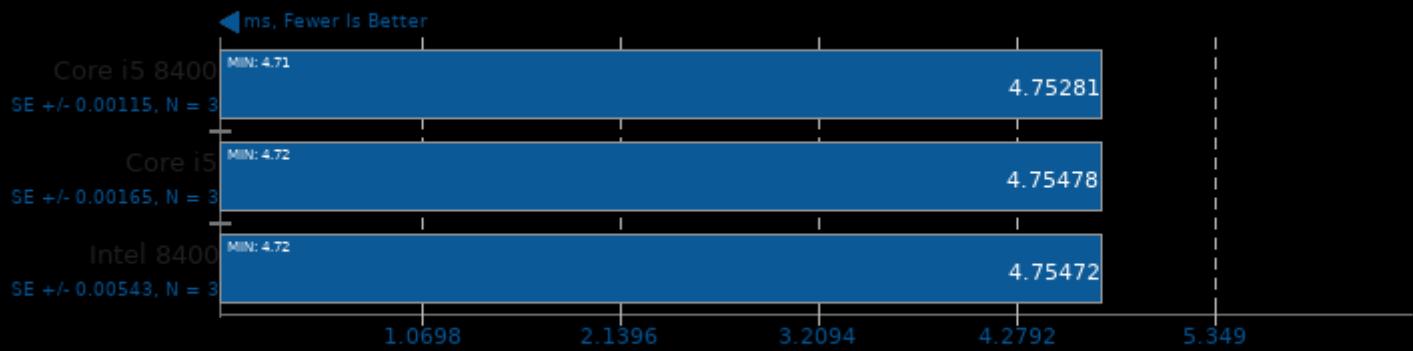
Harness: Recurrent Neural Network Inference - Data Type: bf16bf16bf16 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

oneDNN 2.0

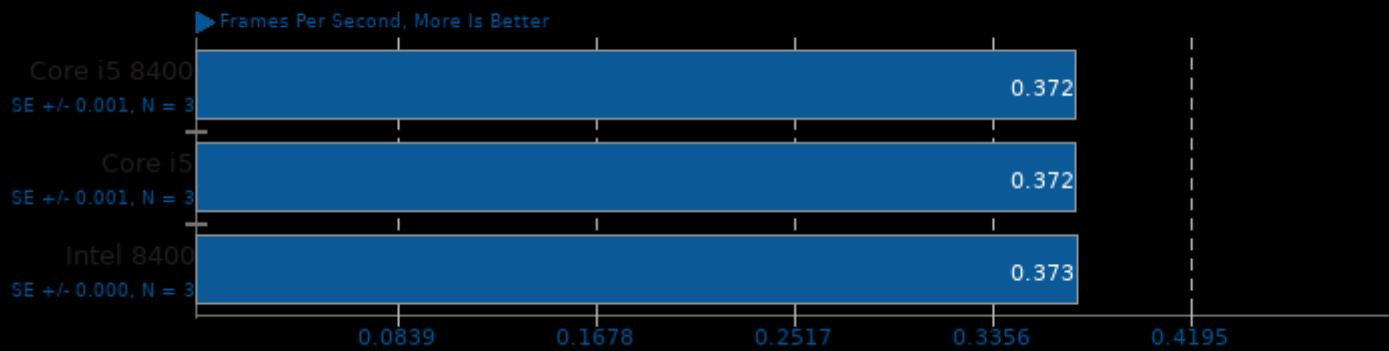
Harness: Matrix Multiply Batch Shapes Transformer - Data Type: u8s8f32 - Engine: CPU



1. (CXX) g++ options: -O3 -std=c++11 -fopenmp -msse4.1 -fPIC -pie -lpthread

rav1e 0.4 Alpha

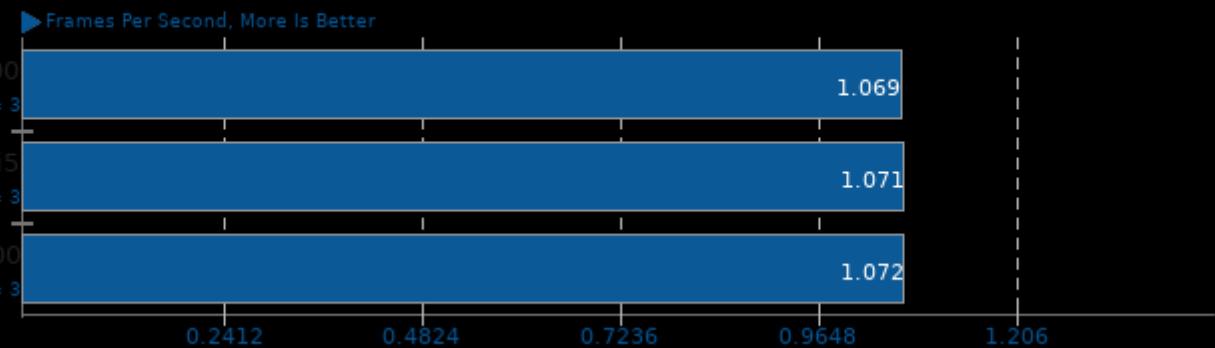
Speed: 1



Core i5 8400 Xmas

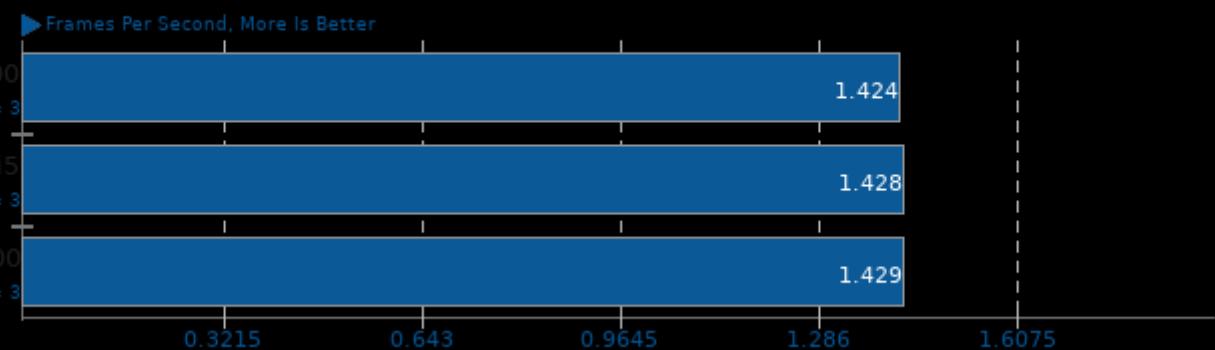
rav1e 0.4 Alpha

Speed: 5



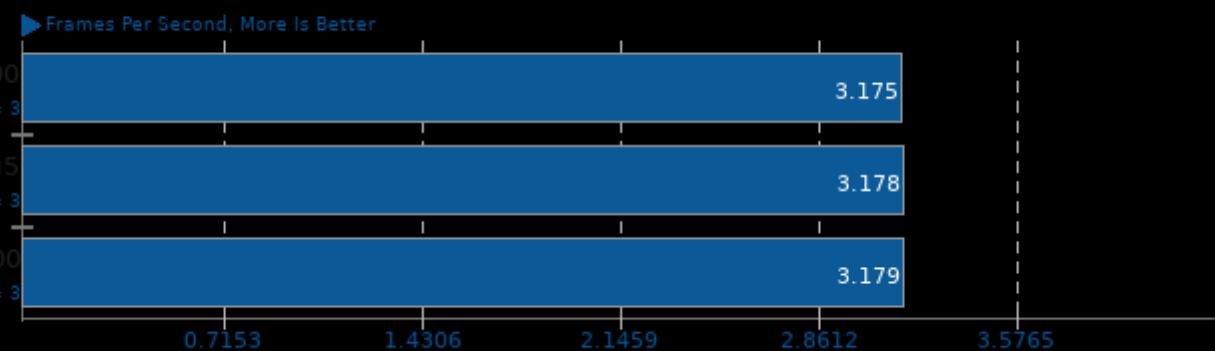
rav1e 0.4 Alpha

Speed: 6



rav1e 0.4 Alpha

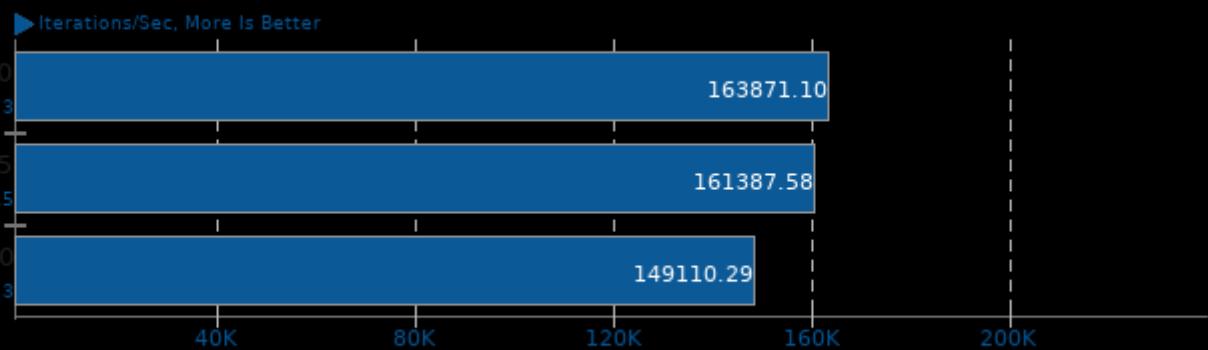
Speed: 10



Core i5 8400 Xmas

Coremark 1.0

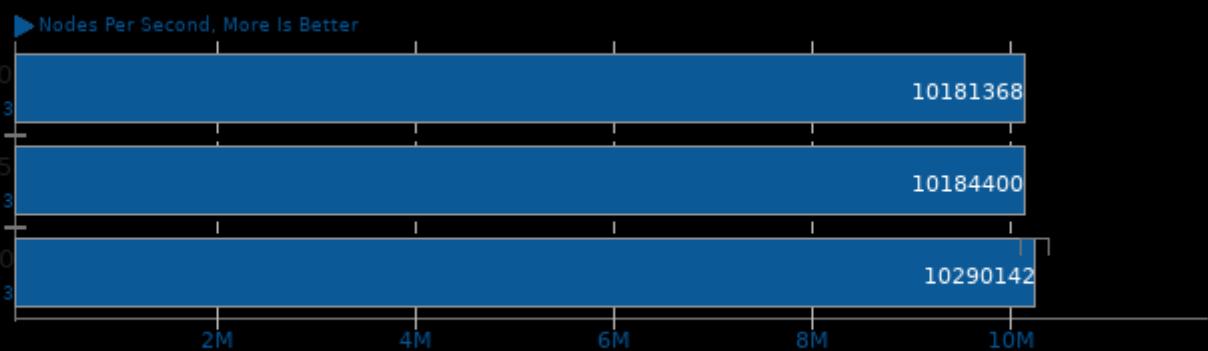
CoreMark Size 666 - Iterations Per Second



1. (CC) gcc options: -O2 -fintc -ftr

Stockfish 12

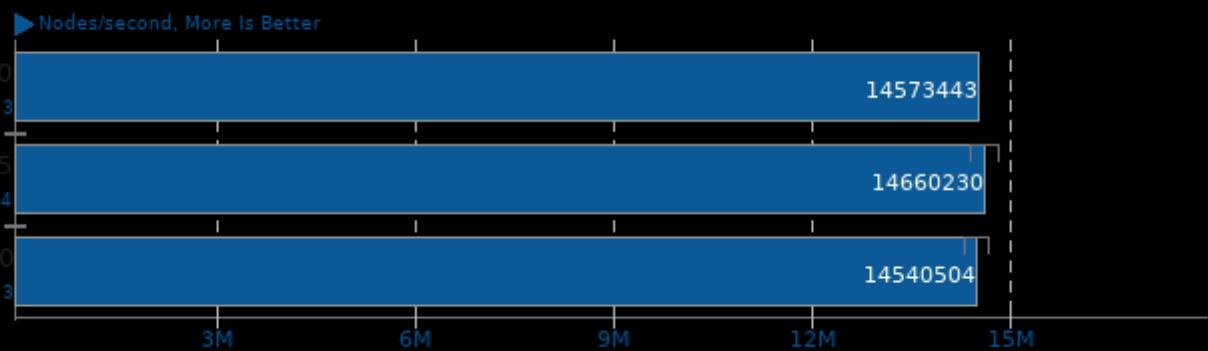
Total Time



1. (CXX) g++ options: -m64 -lpthread -fno-exceptions -std=c++17 -pedantic -O3 -msse -msse3 -mpopcnt -msse4.1 -mssse3 -msse2 -fno -fno=jobserver

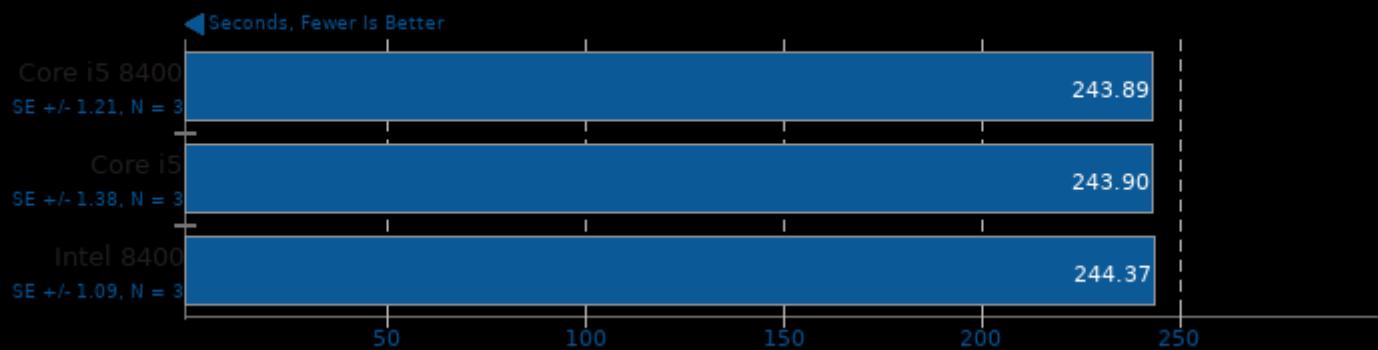
asmFish 2018-07-23

1024 Hash Memory, 26 Depth



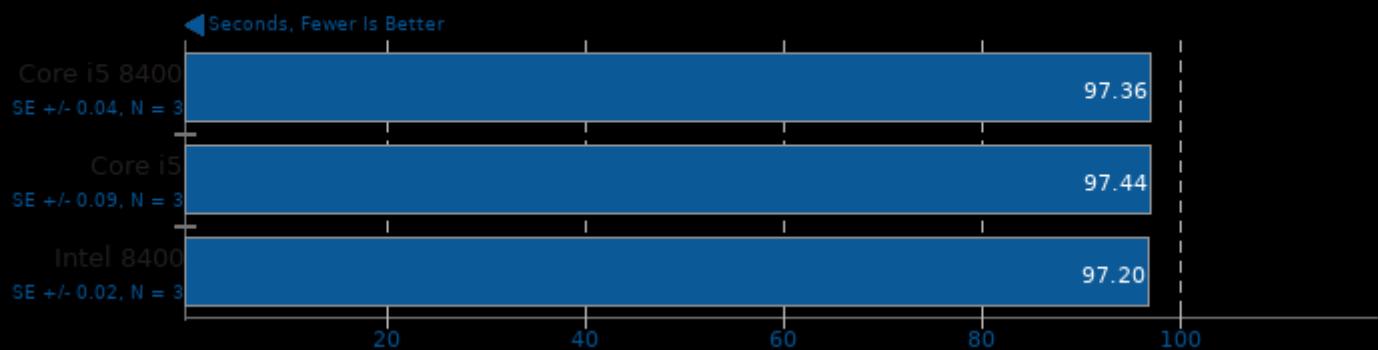
Timed Clash Compilation

Time To Compile



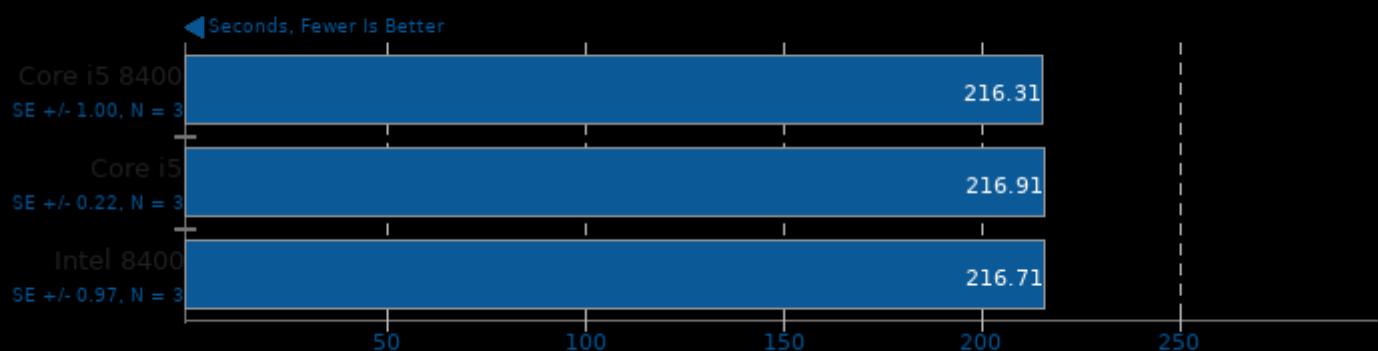
Timed FFmpeg Compilation 4.2.2

Time To Compile



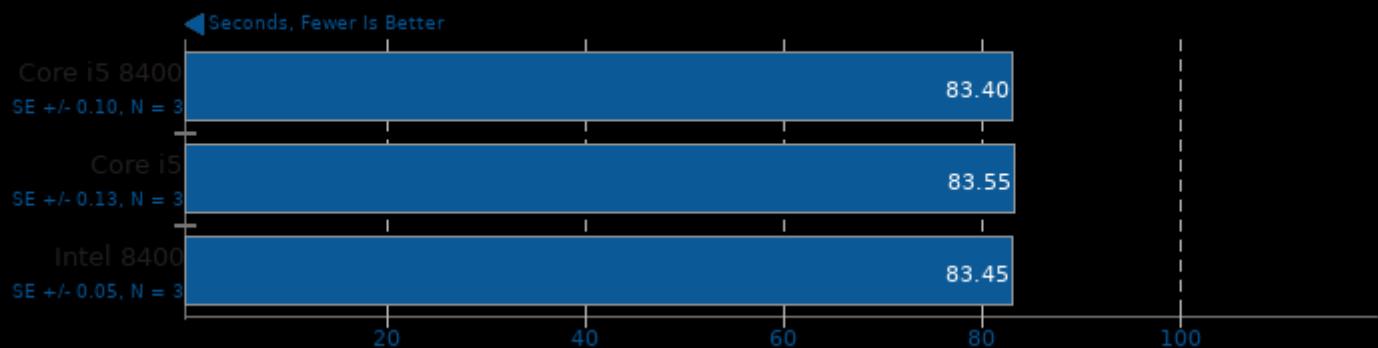
Build2 0.13

Time To Compile



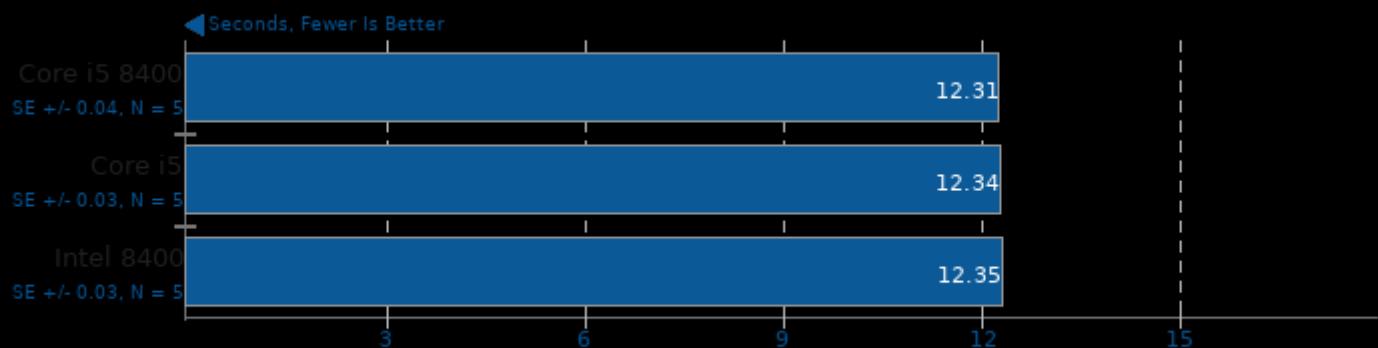
Timed Eigen Compilation 3.3.9

Time To Compile



Monkey Audio Encoding 3.99.6

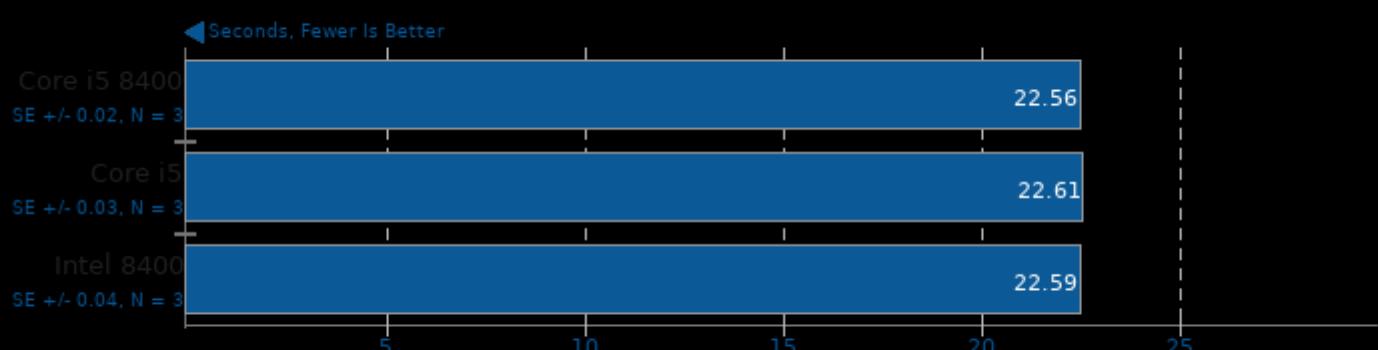
WAV To APE



1. (CXX) g++ options: -O3 -pedantic -rdynamic -lrt

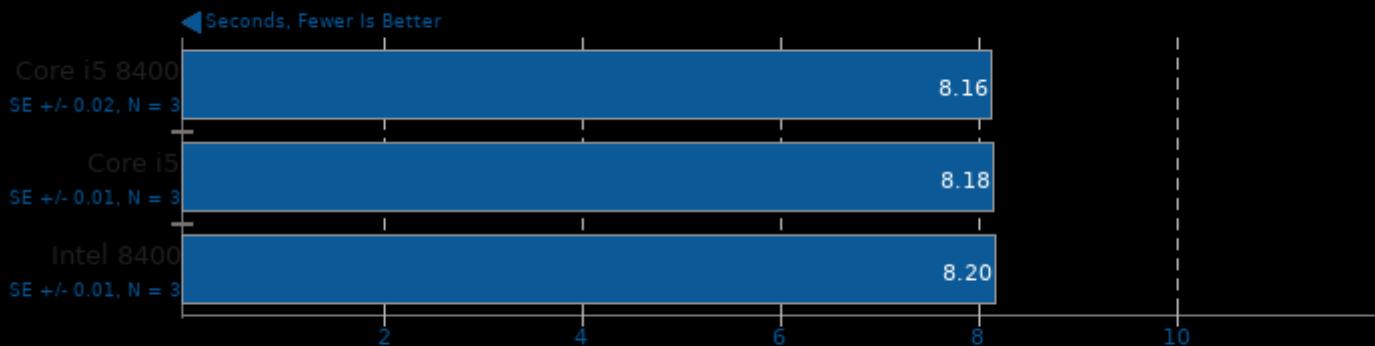
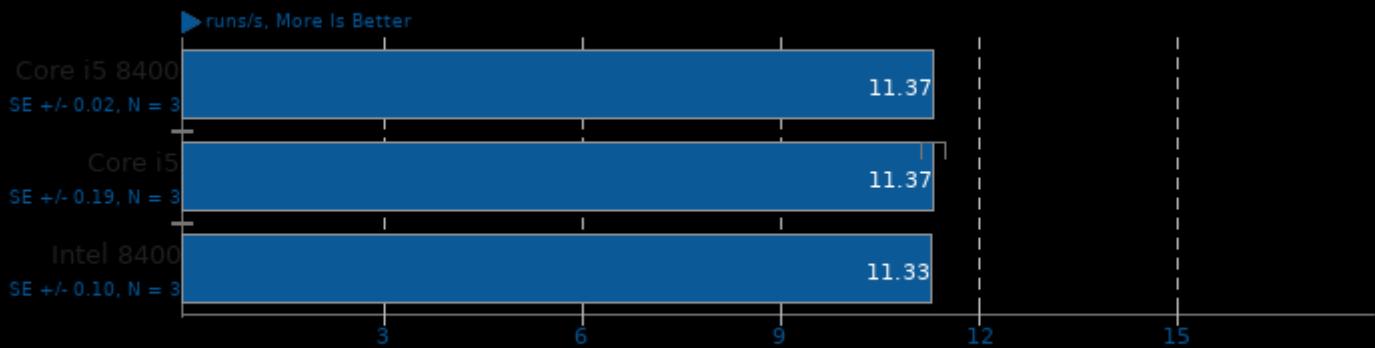
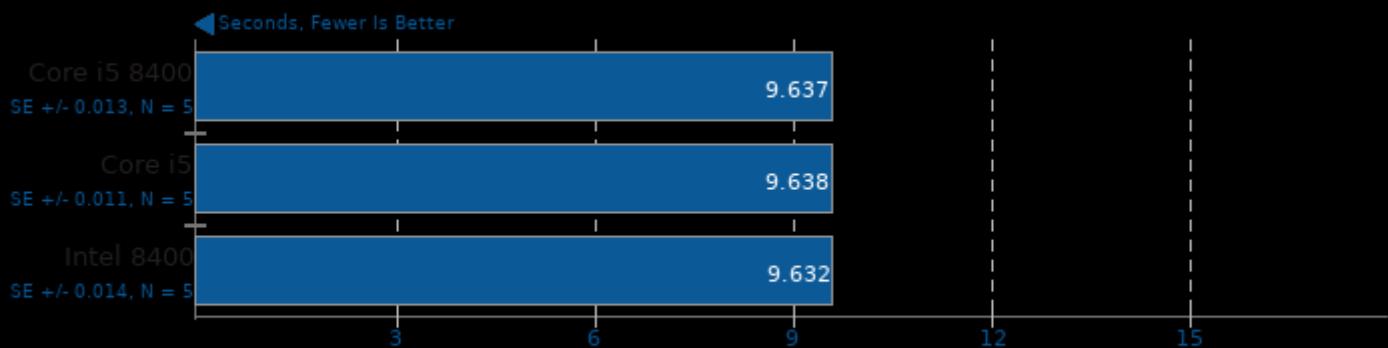
Ogg Audio Encoding 1.3.4

WAV To Ogg



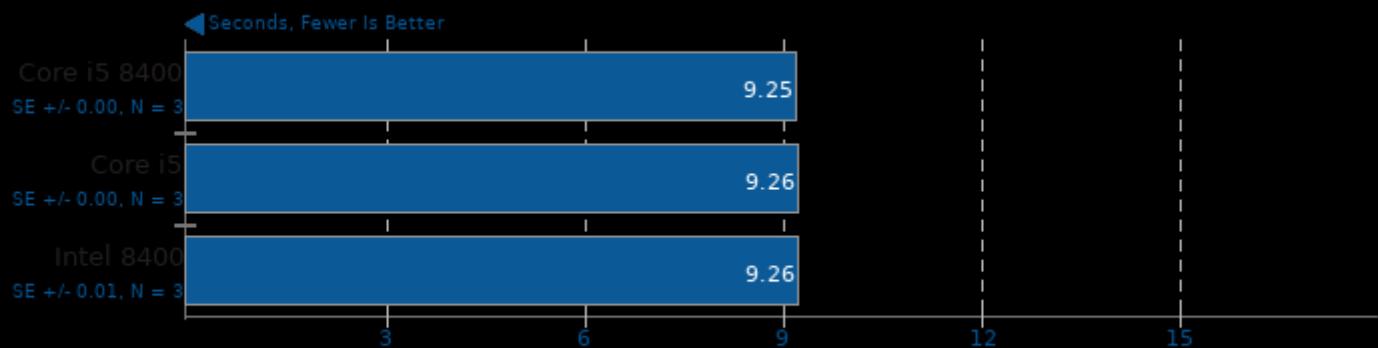
1. (CC) gcc options: -O2 -ffast-math -fsigned-char

Opus Codec Encoding 1.3.1



ASTC Encoder 2.0

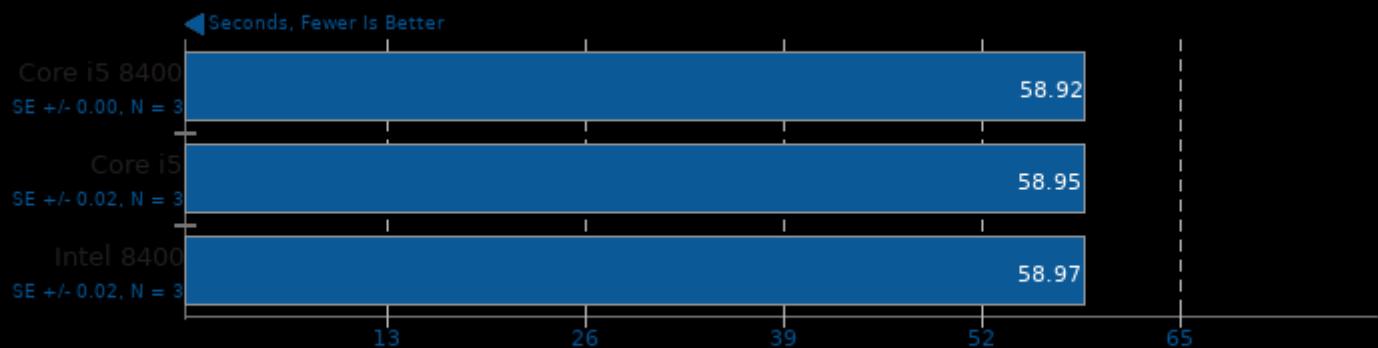
Preset: Medium



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mavx2 -mpopcnt -lpthread

ASTC Encoder 2.0

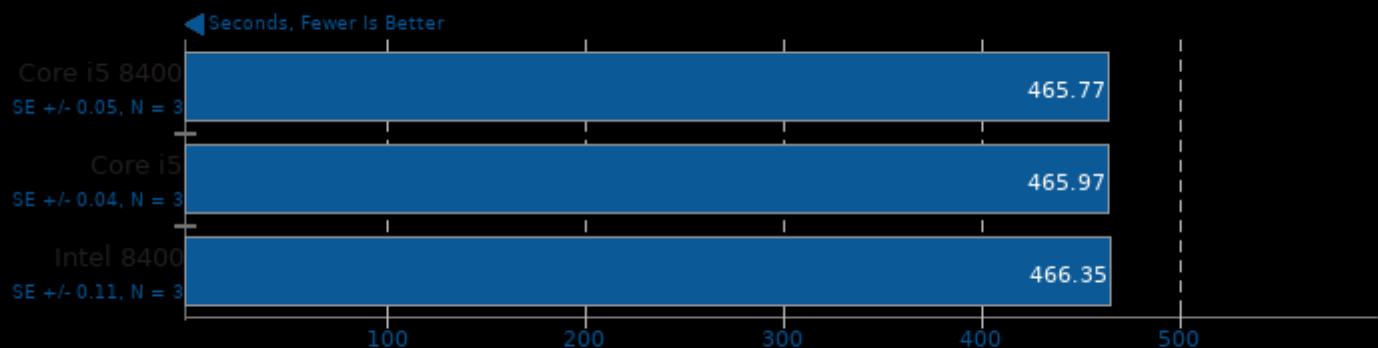
Preset: Thorough



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mavx2 -mpopcnt -lpthread

ASTC Encoder 2.0

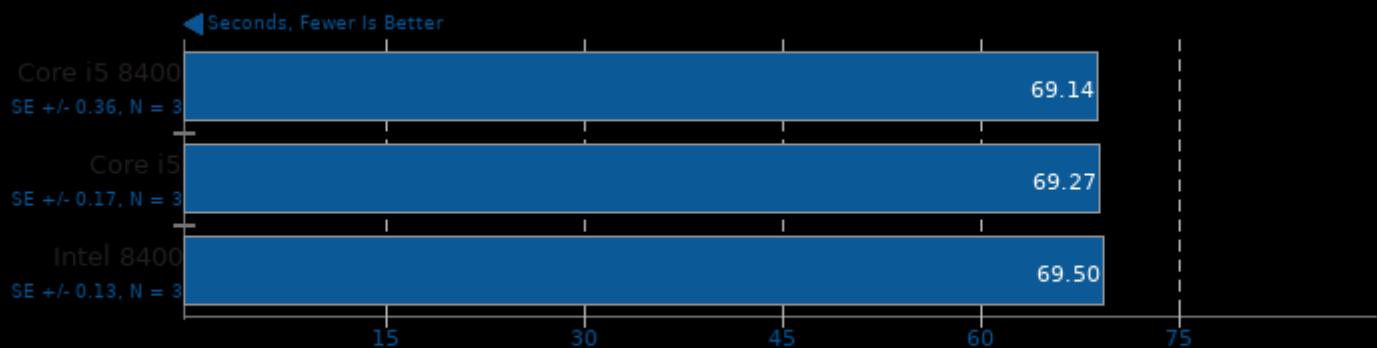
Preset: Exhaustive



1. (CXX) g++ options: -std=c++14 -fvisibility=hidden -O3 -fno-math-errno -mavx2 -mpopcnt -lpthread

SQLite Speedtest 3.30

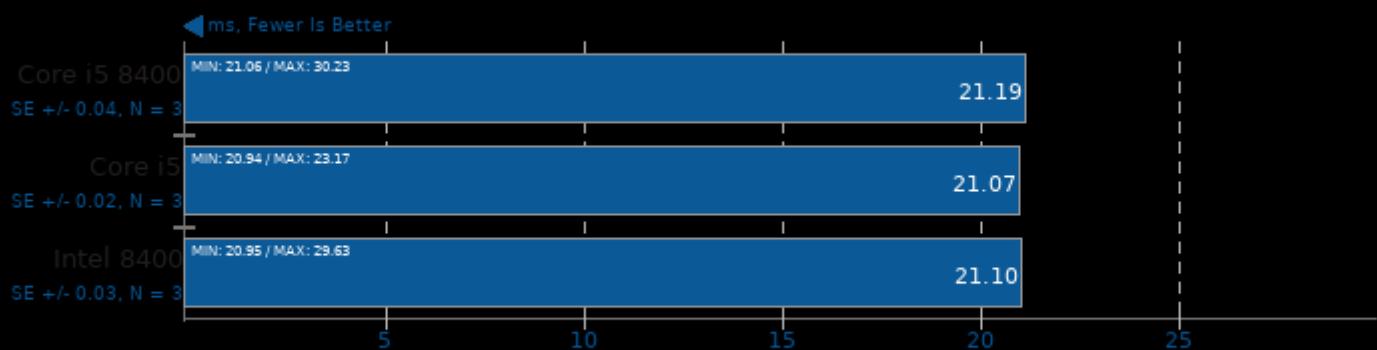
Timed Time - Size 1,000



1. (CC) gcc options: -O2 -ldl -lz -lpthread

NCNN 20201218

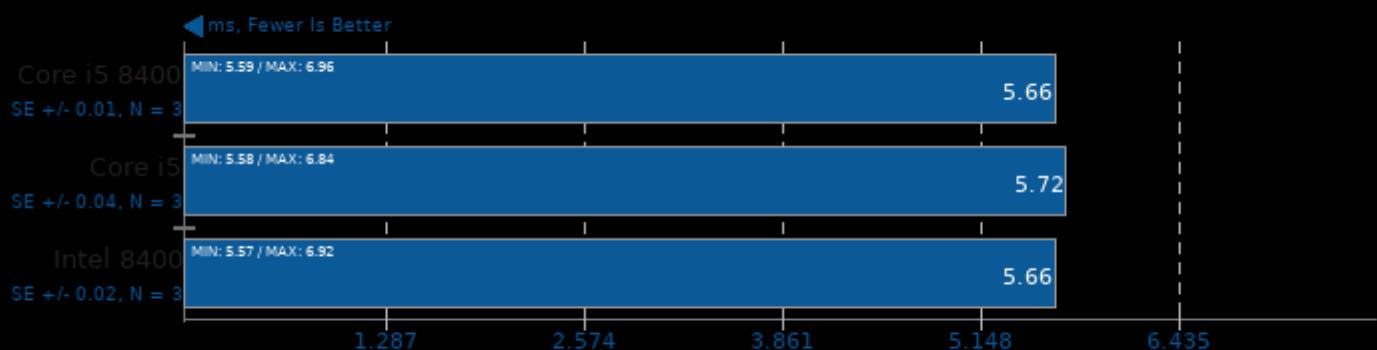
Target: CPU - Model: mobilenet



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: CPU-v2-v2 - Model: mobilenet-v2

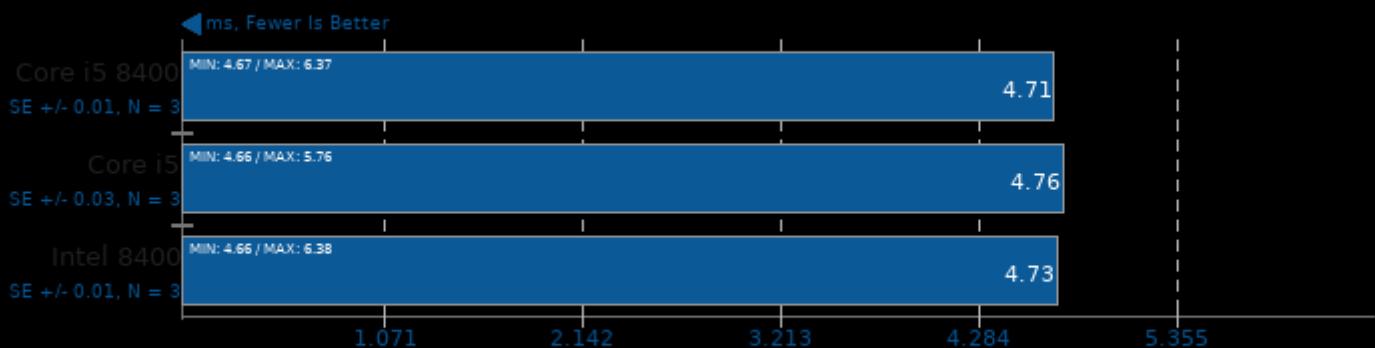


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

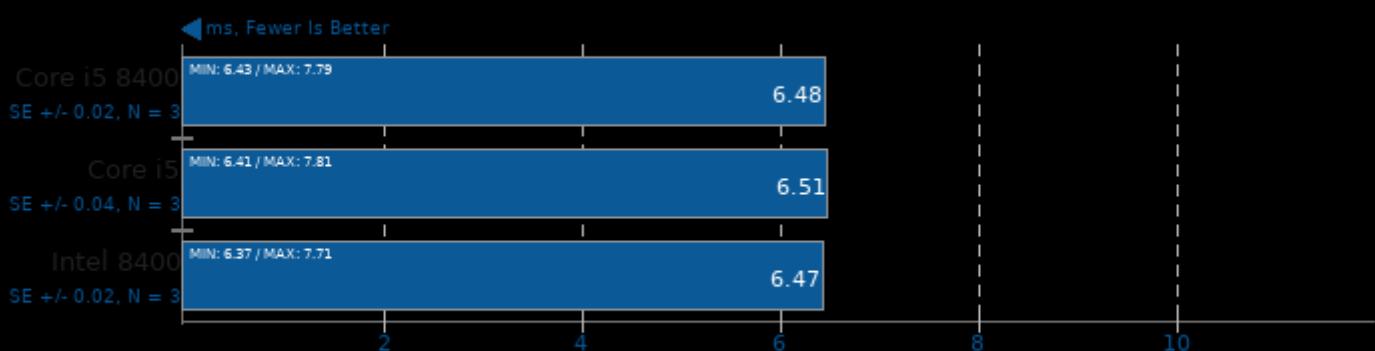
Target: CPU-v3-v3 - Model: mobilenet-v3



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

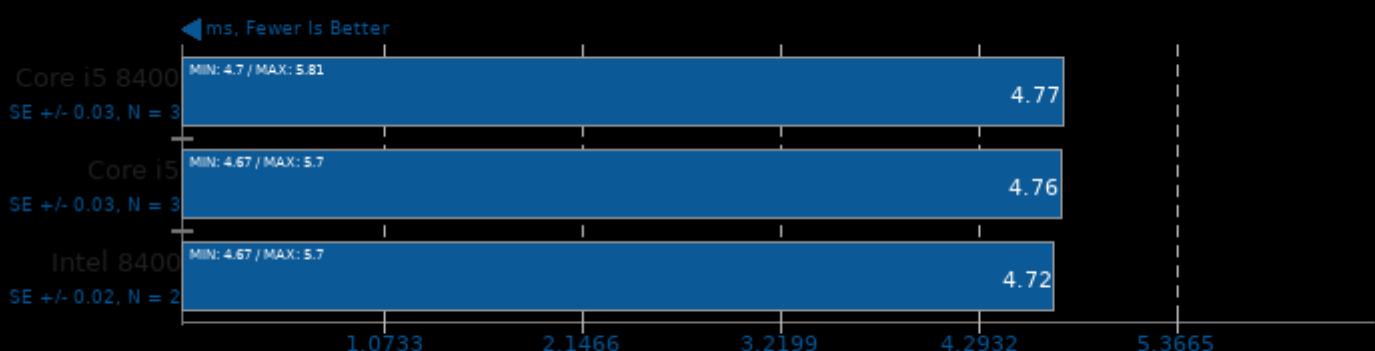
Target: CPU - Model: shufflenet-v2



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: CPU - Model: mnasnet

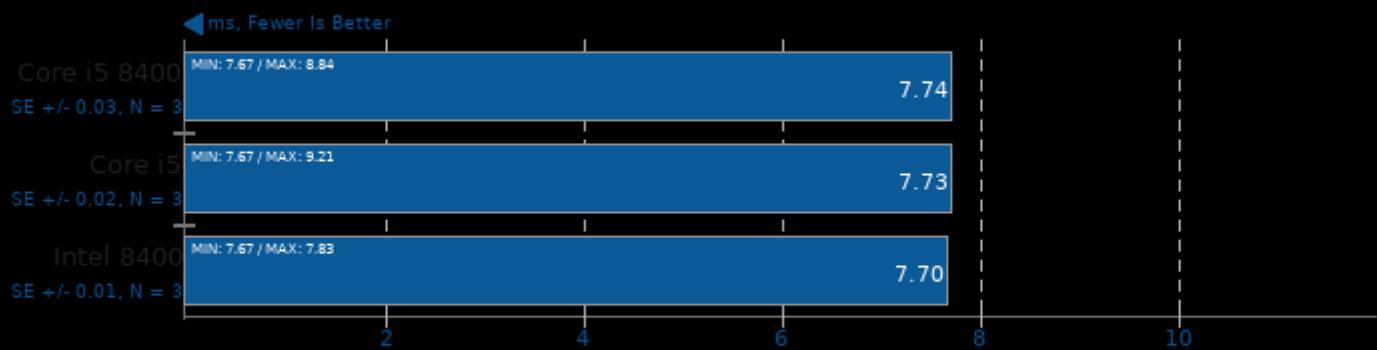


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

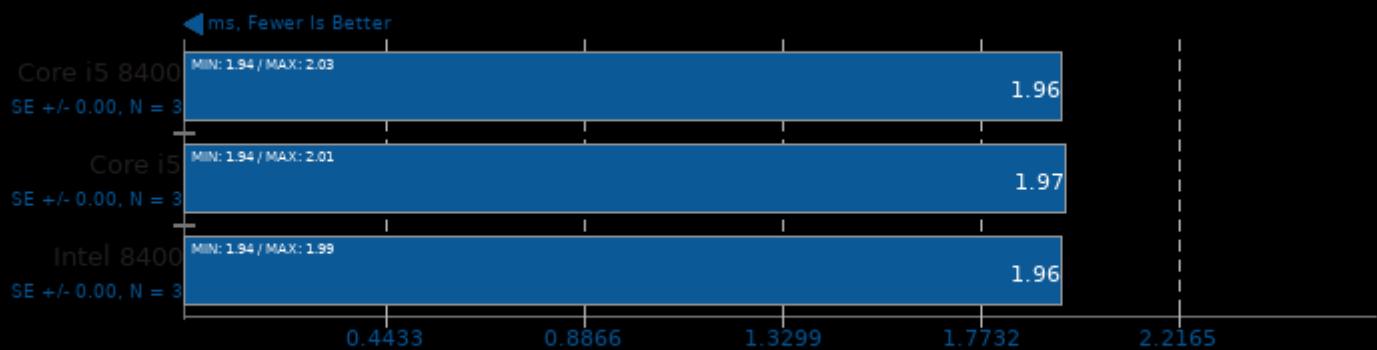
Target: CPU - Model: efficientnet-b0



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

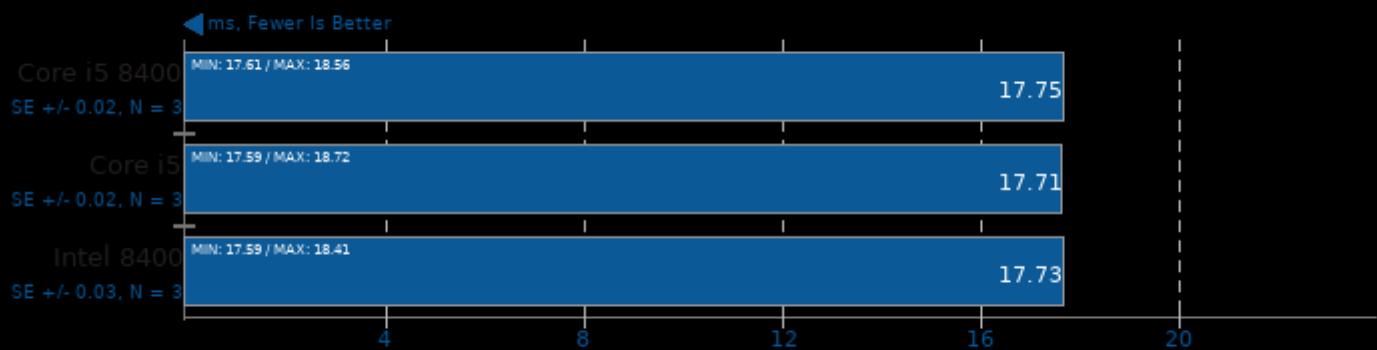
Target: CPU - Model: blazeface



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: CPU - Model: googlenet

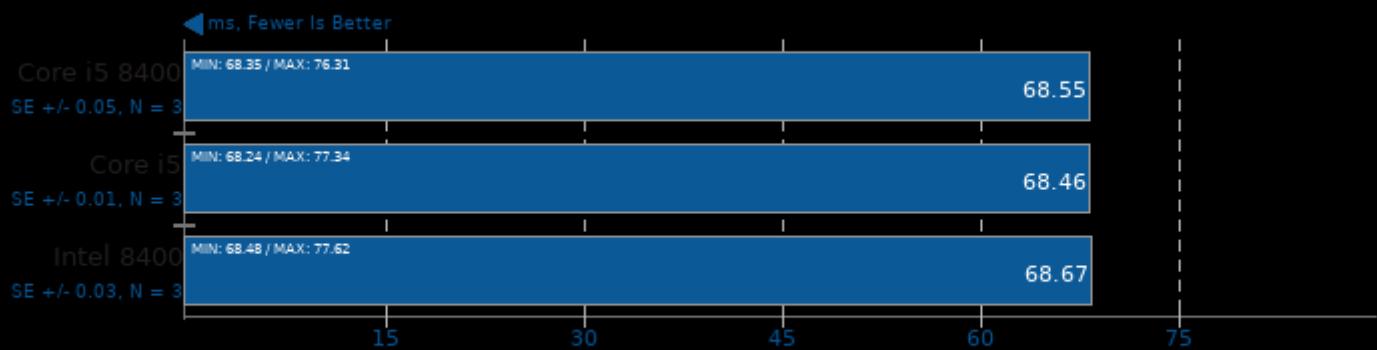


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

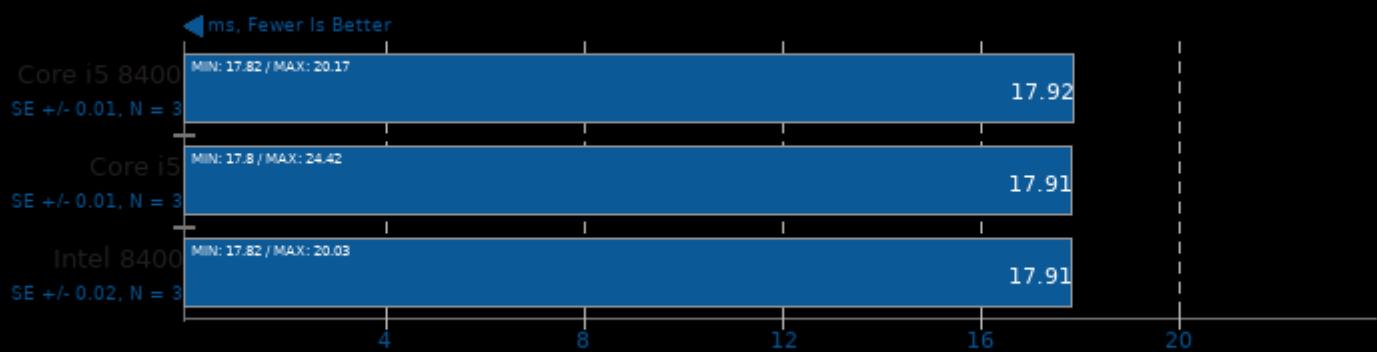
Target: CPU - Model: vgg16



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

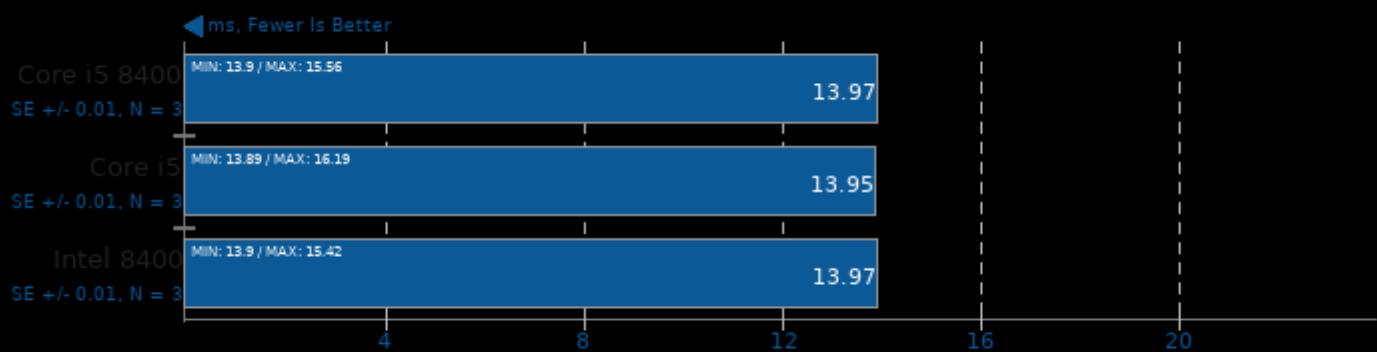
Target: CPU - Model: resnet18



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: CPU - Model: alexnet

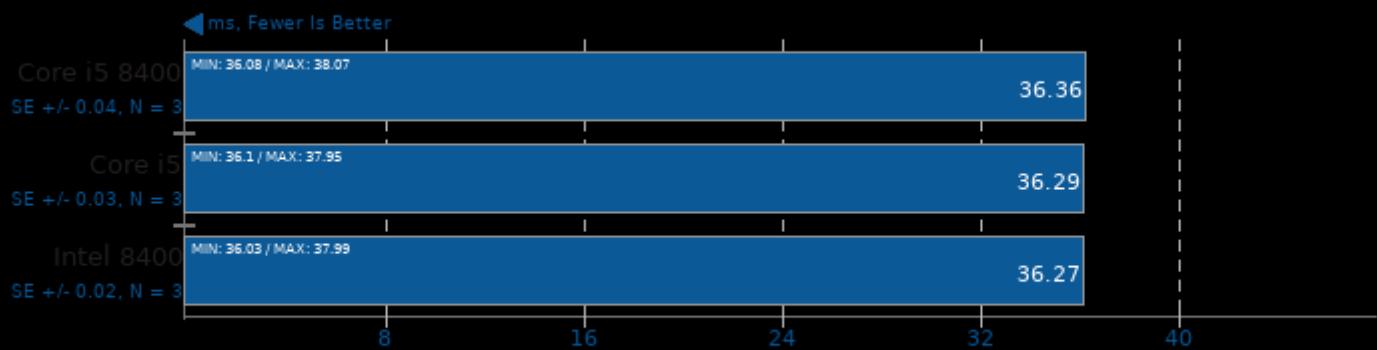


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

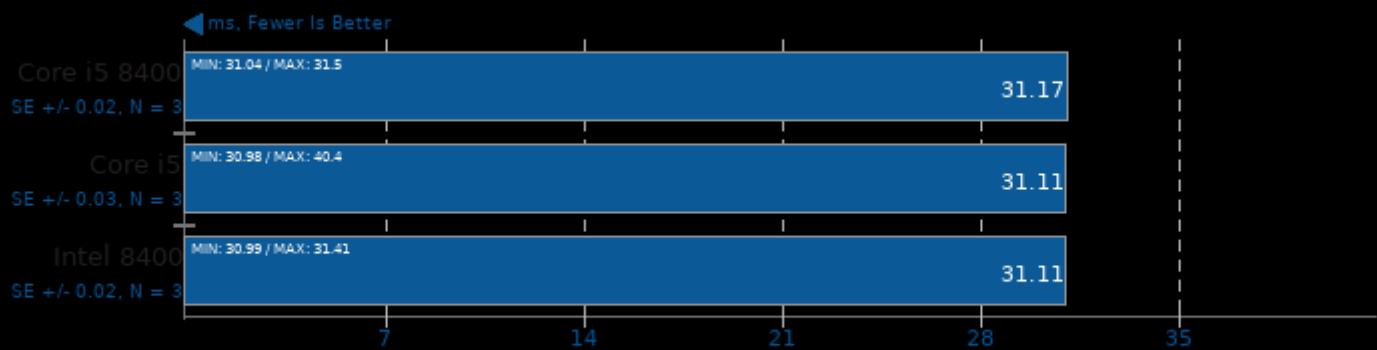
Target: CPU - Model: resnet50



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

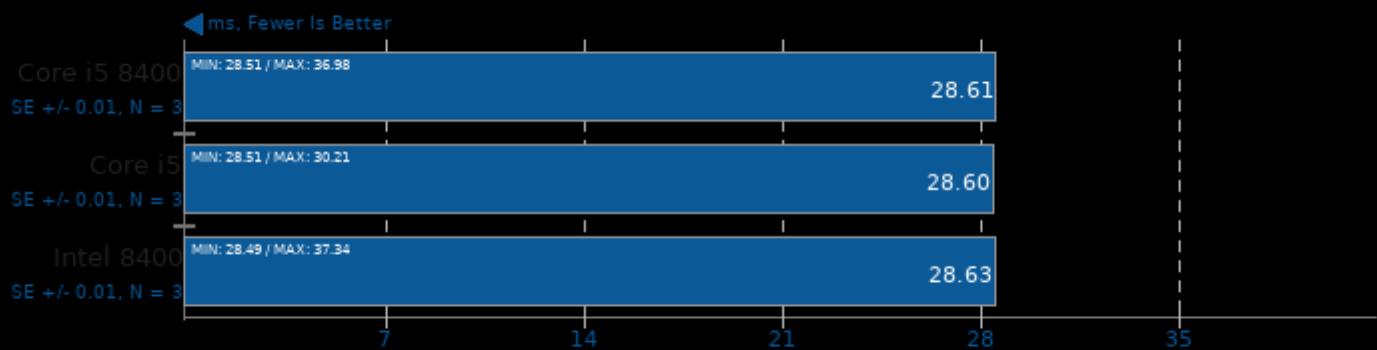
Target: CPU - Model: yolov4-tiny



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

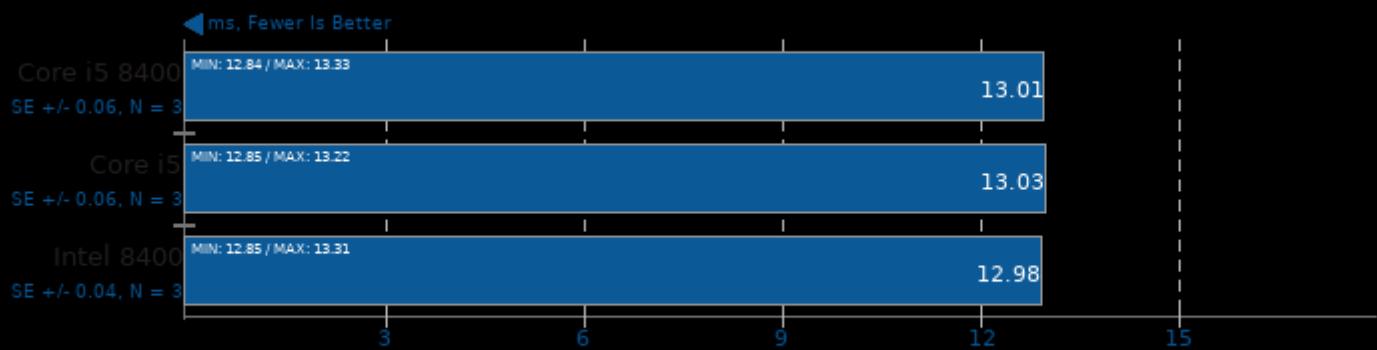
Target: CPU - Model: squeezezenet_ssd



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

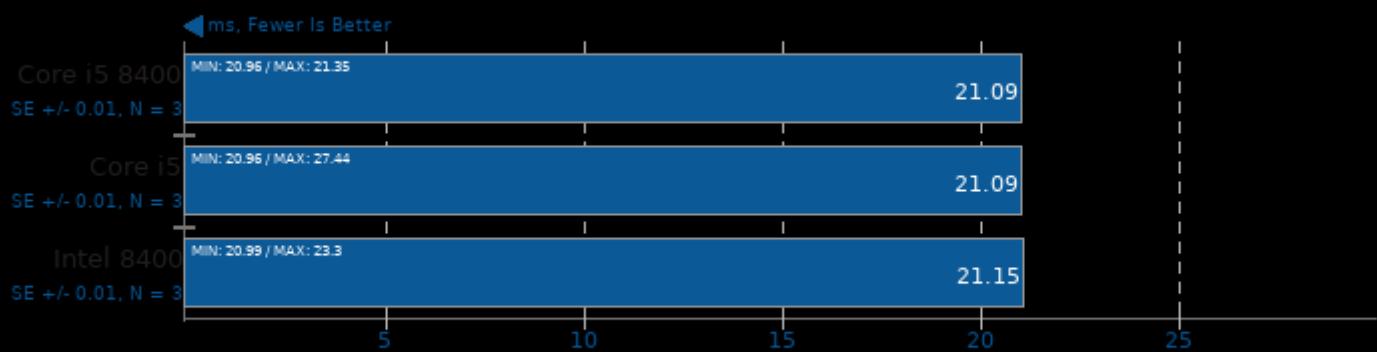
Target: CPU - Model: regnety_400m



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

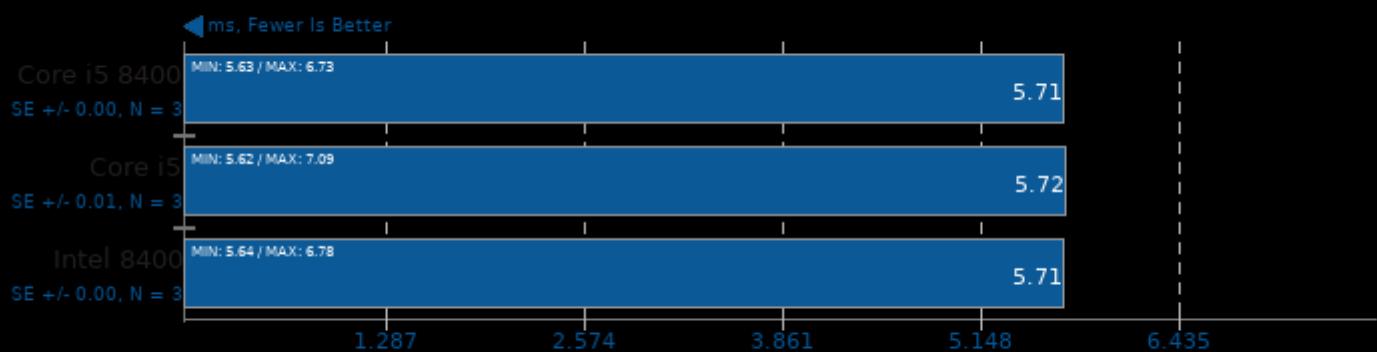
Target: Vulkan GPU - Model: mobilenet



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: Vulkan GPU-v2-v2 - Model: mobilenet-v2

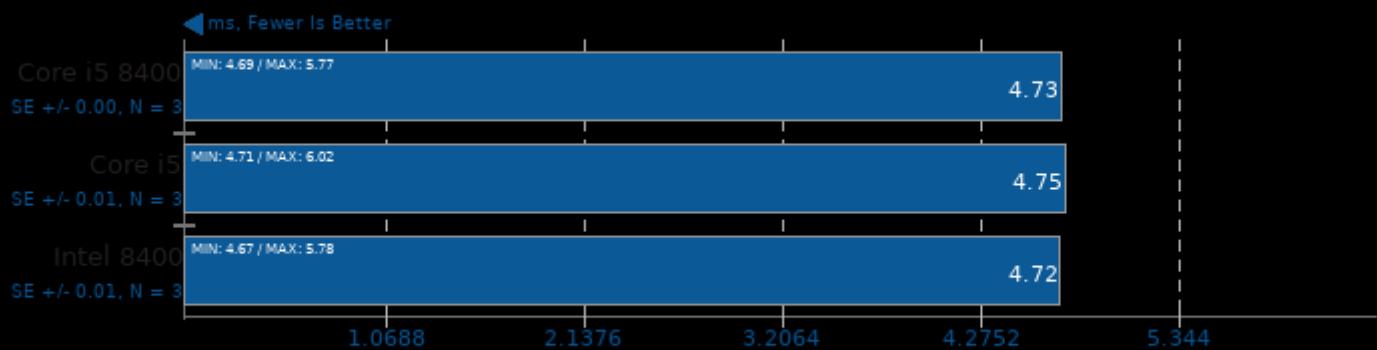


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

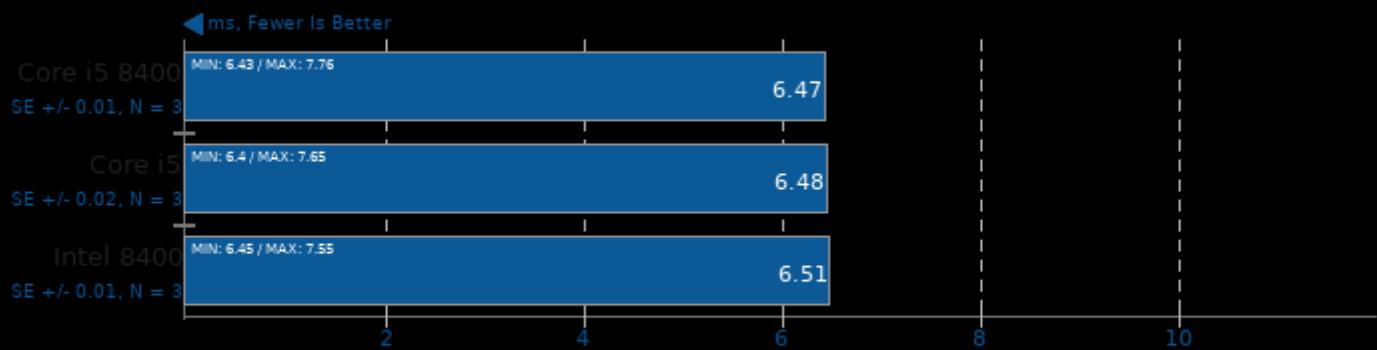
Target: Vulkan GPU-v3-v3 - Model: mobilenet-v3



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

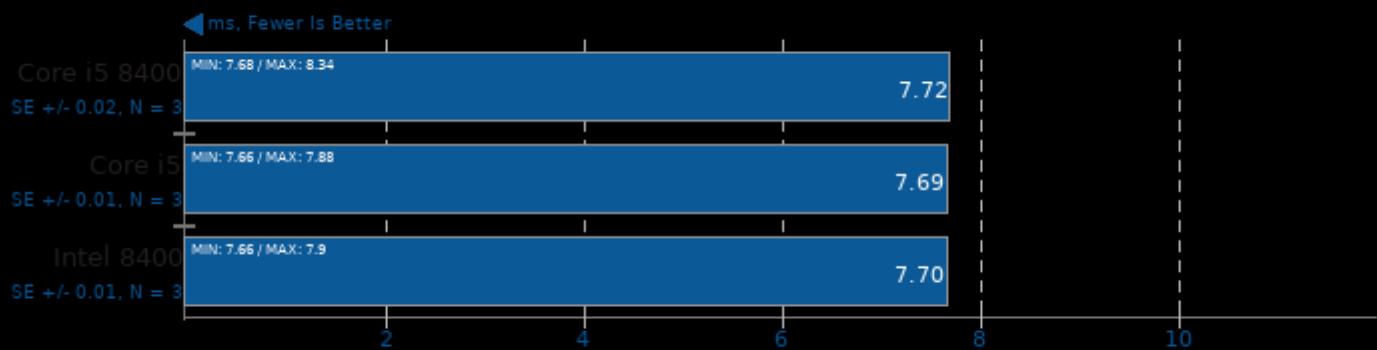
Target: Vulkan GPU - Model: shufflenet-v2



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: Vulkan GPU - Model: efficientnet-b0

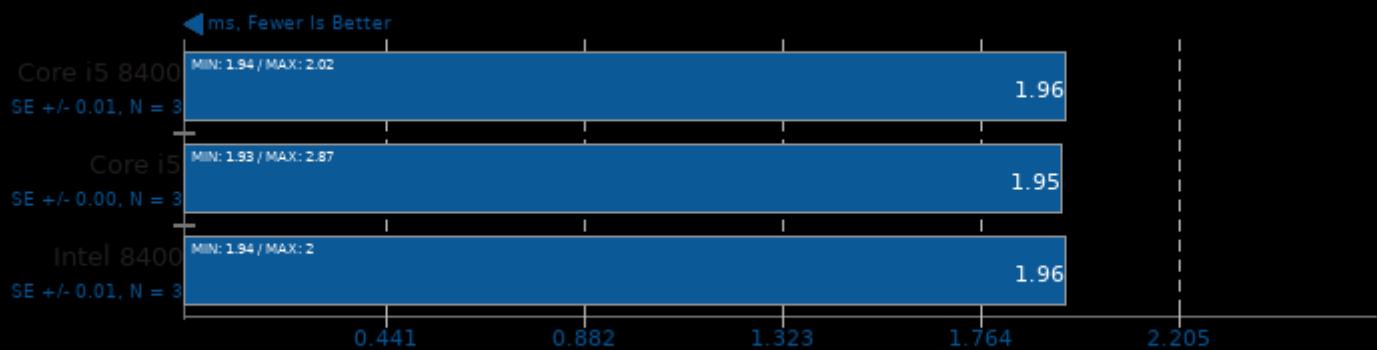


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

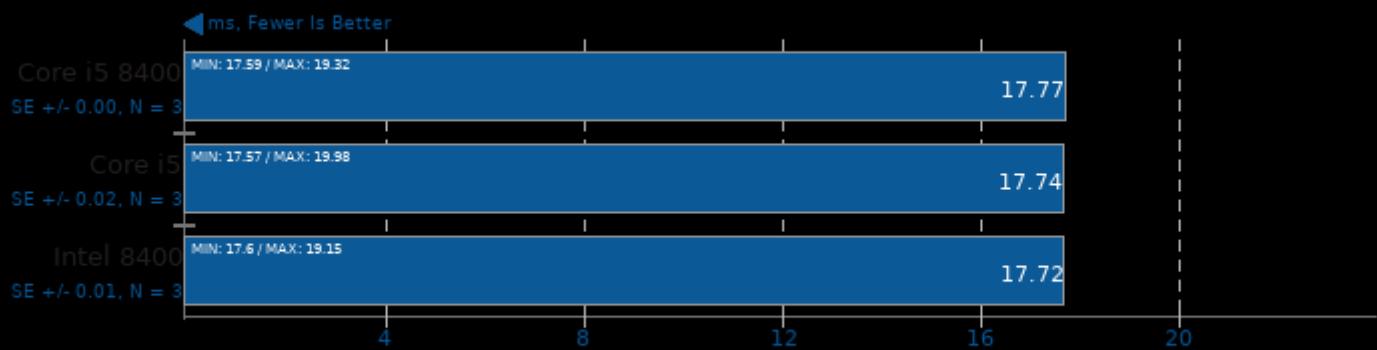
Target: Vulkan GPU - Model: blazeface



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

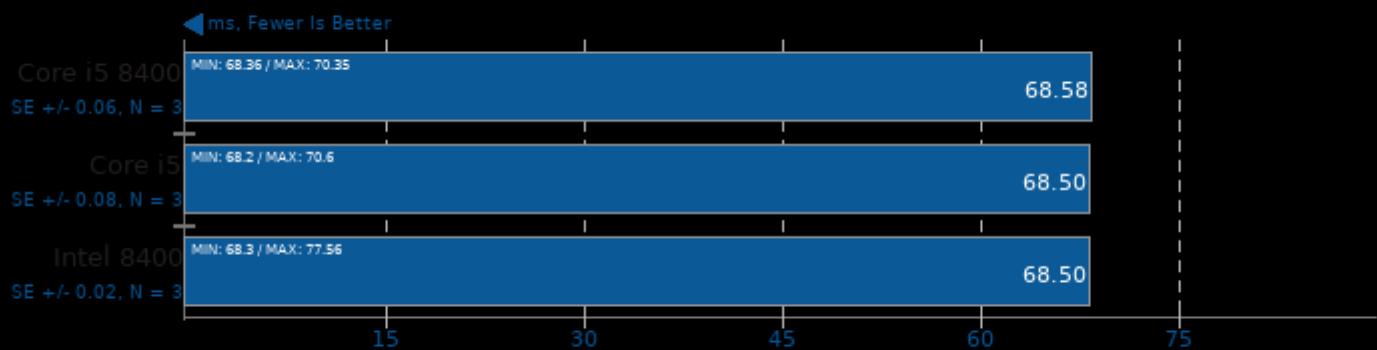
Target: Vulkan GPU - Model: googlenet



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: Vulkan GPU - Model: vgg16

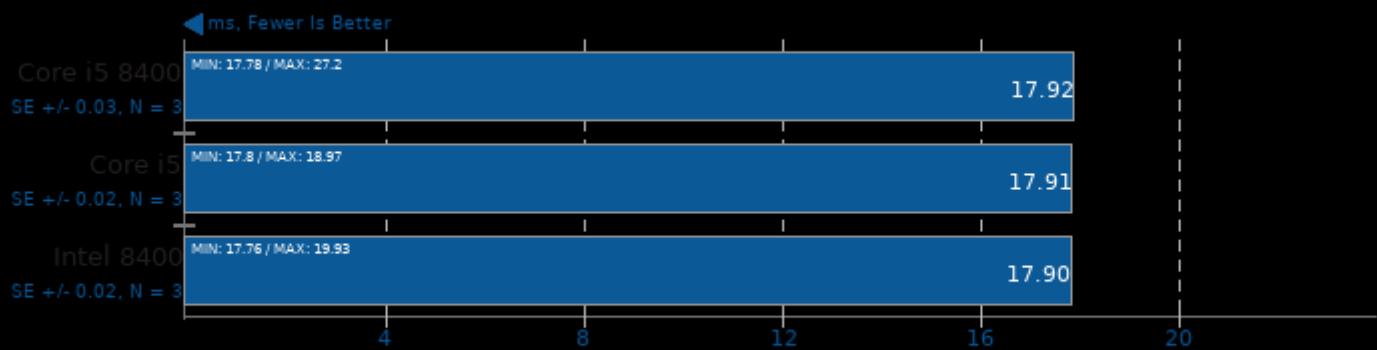


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

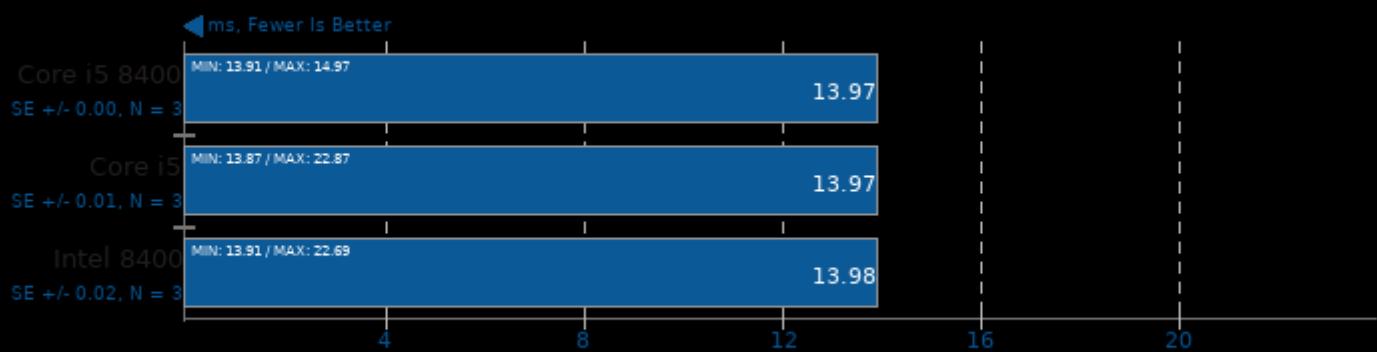
Target: Vulkan GPU - Model: resnet18



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

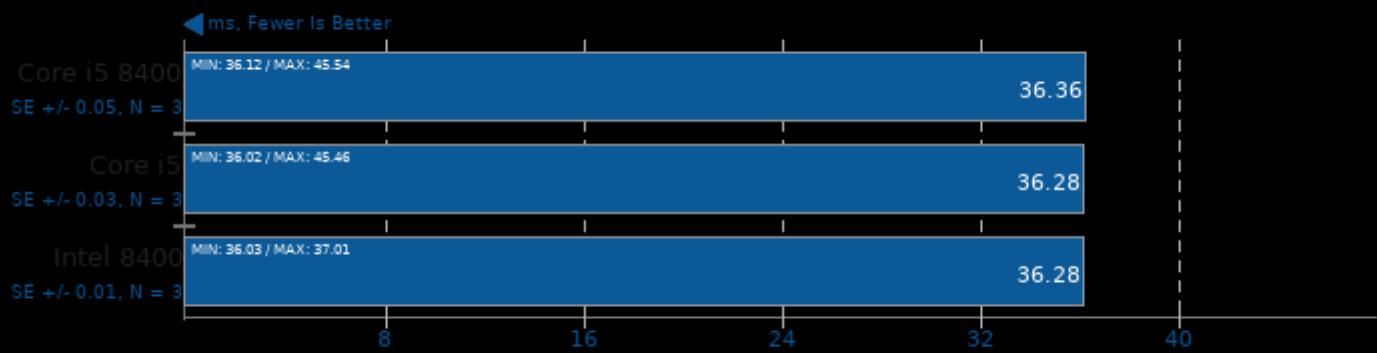
Target: Vulkan GPU - Model: alexnet



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

Target: Vulkan GPU - Model: resnet50

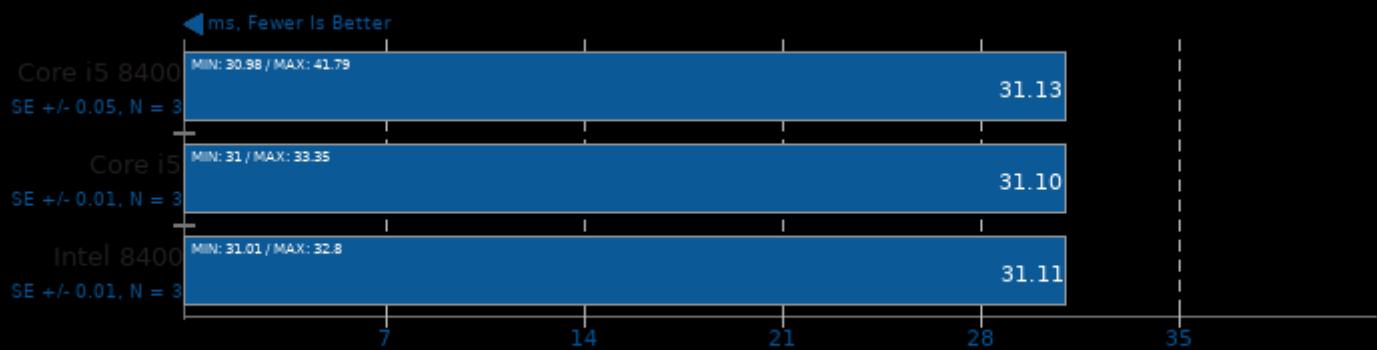


1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

Core i5 8400 Xmas

NCNN 20201218

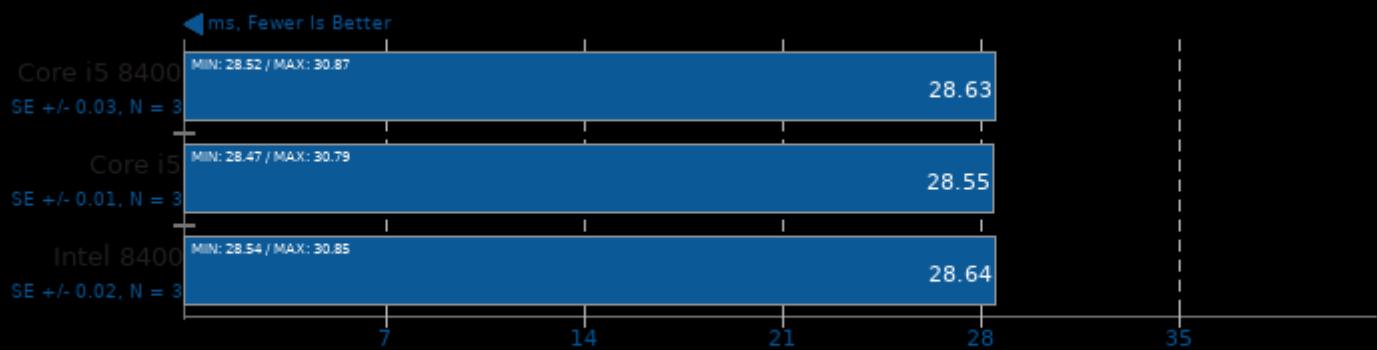
Target: Vulkan GPU - Model: yolov4-tiny



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

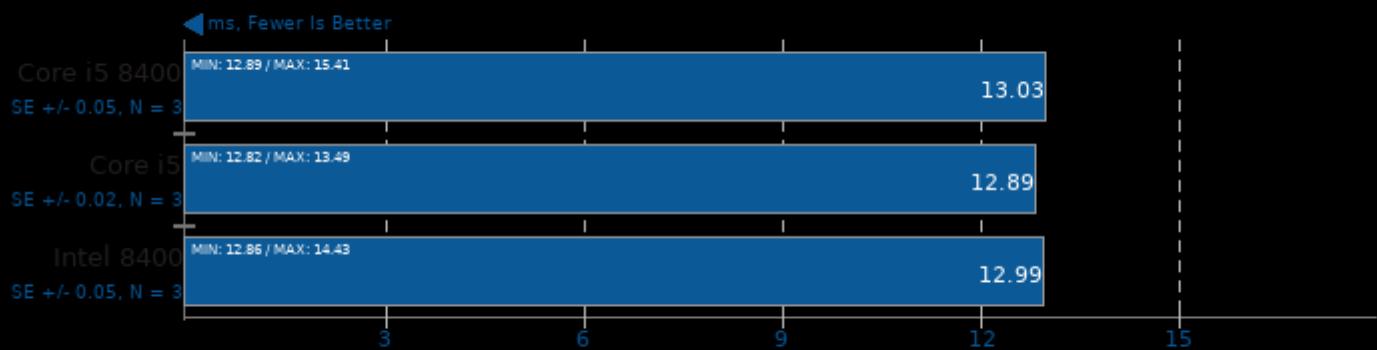
Target: Vulkan GPU - Model: squeezenet_ss



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

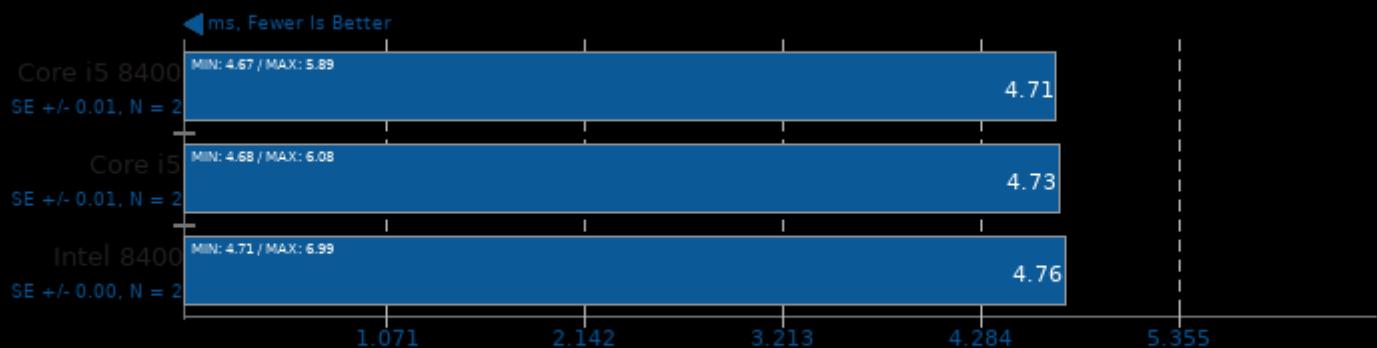
Target: Vulkan GPU - Model: regnety_400m



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

NCNN 20201218

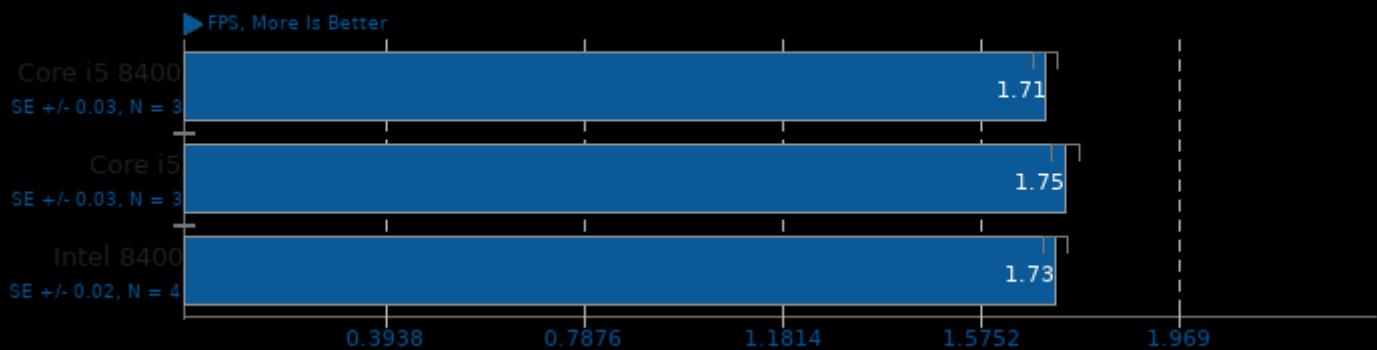
Target: Vulkan GPU - Model: mnasnet



1. (CXX) g++ options: -O3 -rdynamic -lgomp -lpthread

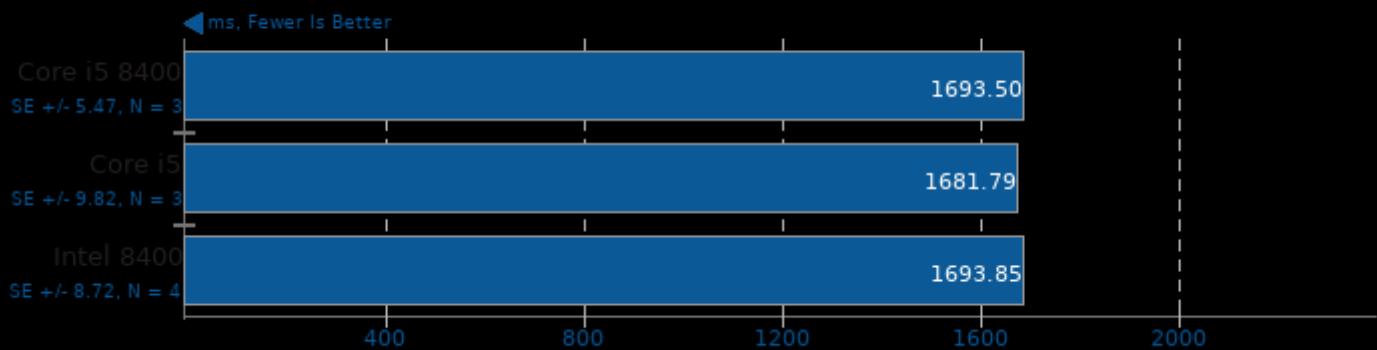
OpenVINO 2021.1

Model: Face Detection 0106 FP16 - Device: CPU



OpenVINO 2021.1

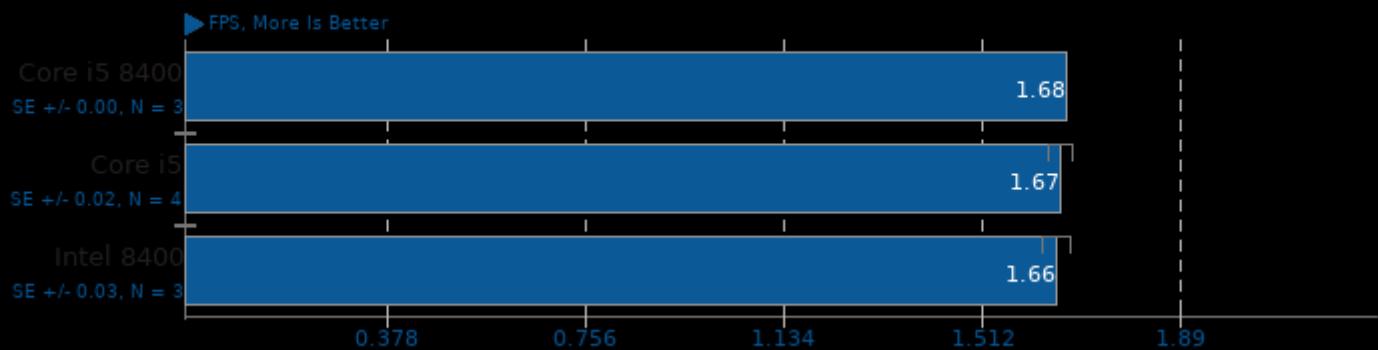
Model: Face Detection 0106 FP16 - Device: CPU



Core i5 8400 Xmas

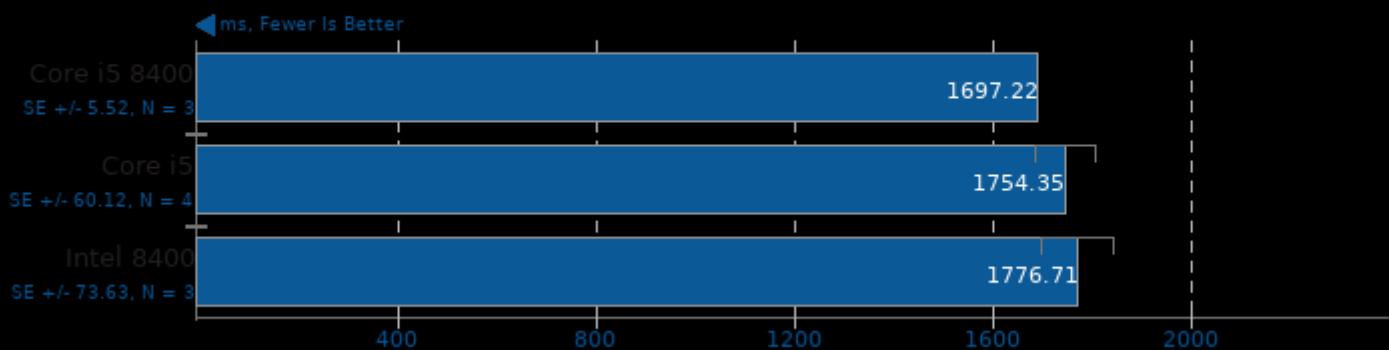
OpenVINO 2021.1

Model: Face Detection 0106 FP32 - Device: CPU



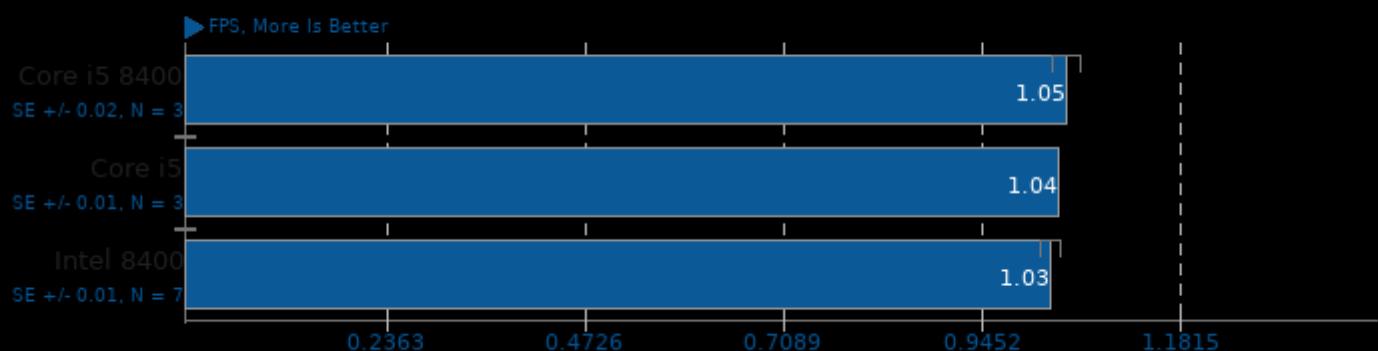
OpenVINO 2021.1

Model: Face Detection 0106 FP32 - Device: CPU



OpenVINO 2021.1

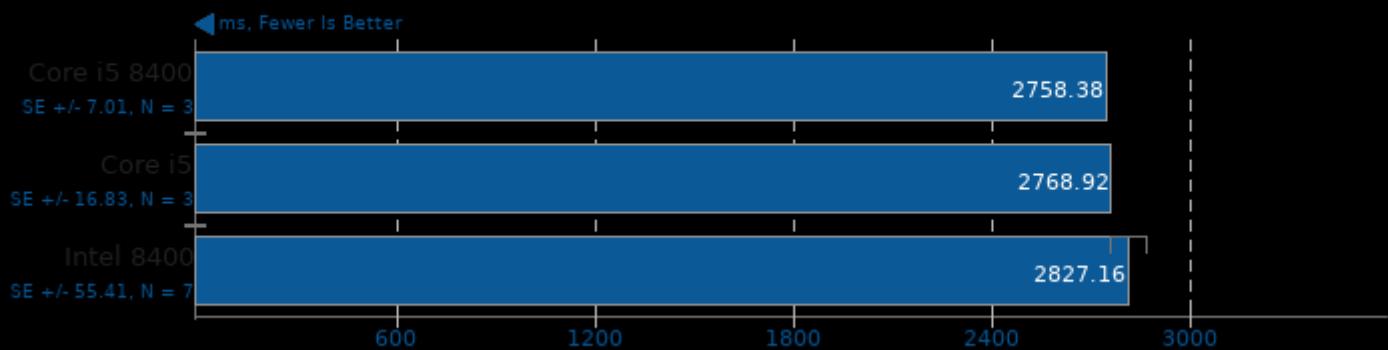
Model: Person Detection 0106 FP16 - Device: CPU



Core i5 8400 Xmas

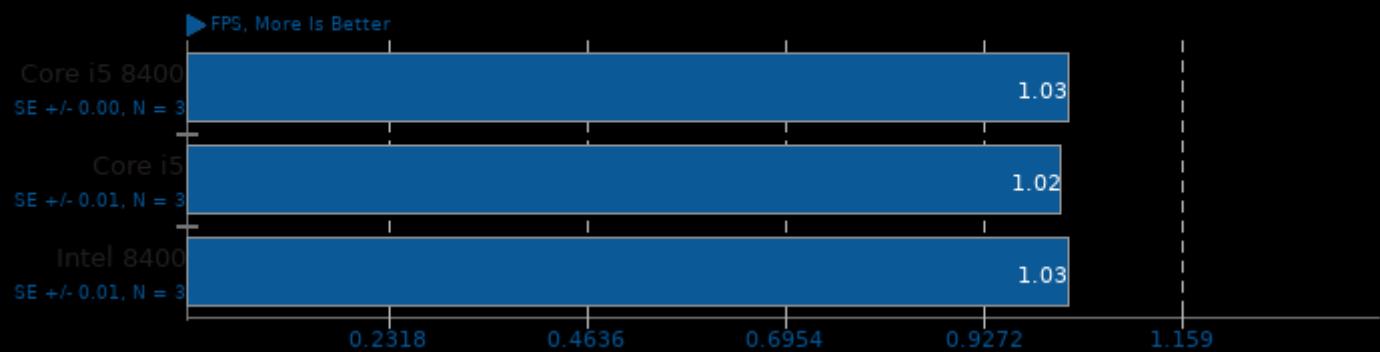
OpenVINO 2021.1

Model: Person Detection 0106 FP16 - Device: CPU



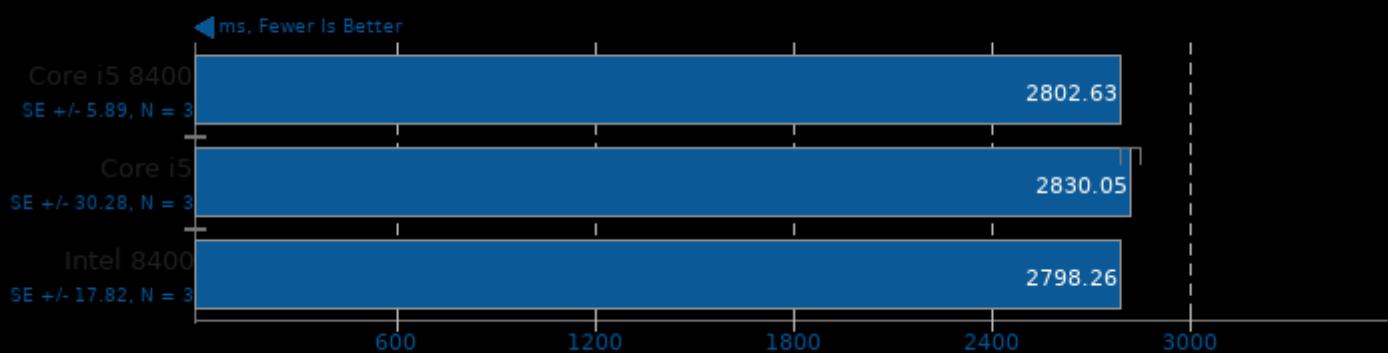
OpenVINO 2021.1

Model: Person Detection 0106 FP32 - Device: CPU



OpenVINO 2021.1

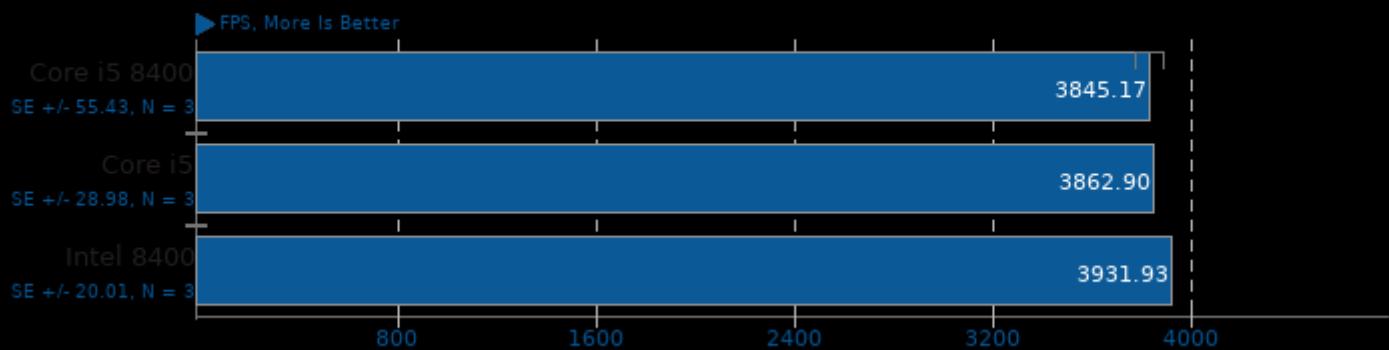
Model: Person Detection 0106 FP32 - Device: CPU



Core i5 8400 Xmas

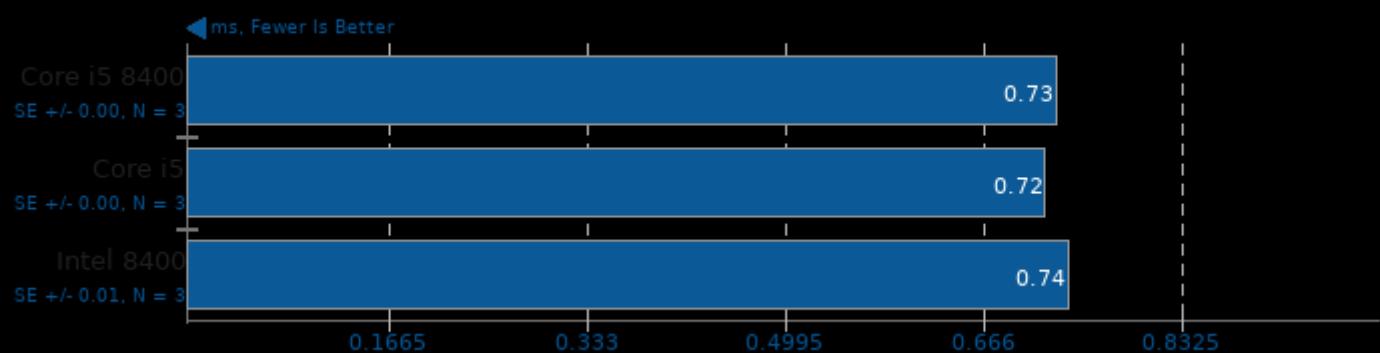
OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU



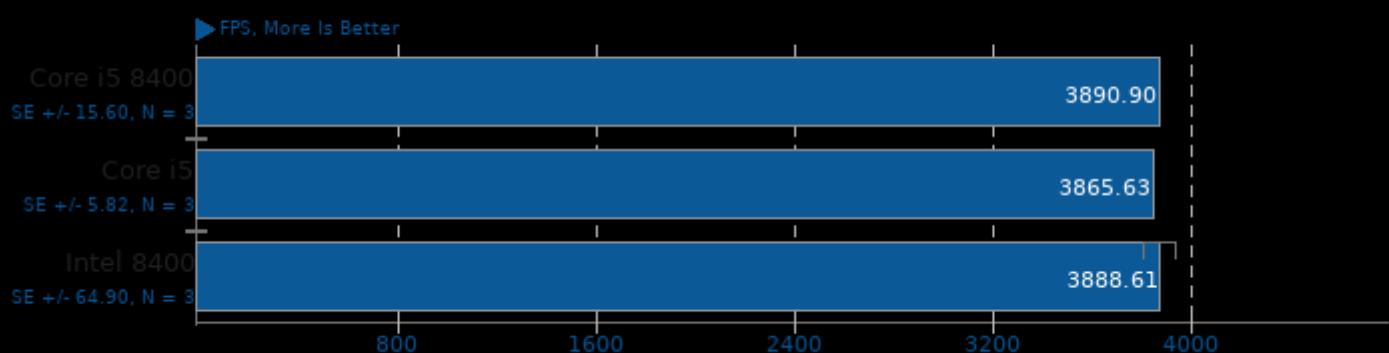
OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP16 - Device: CPU



OpenVINO 2021.1

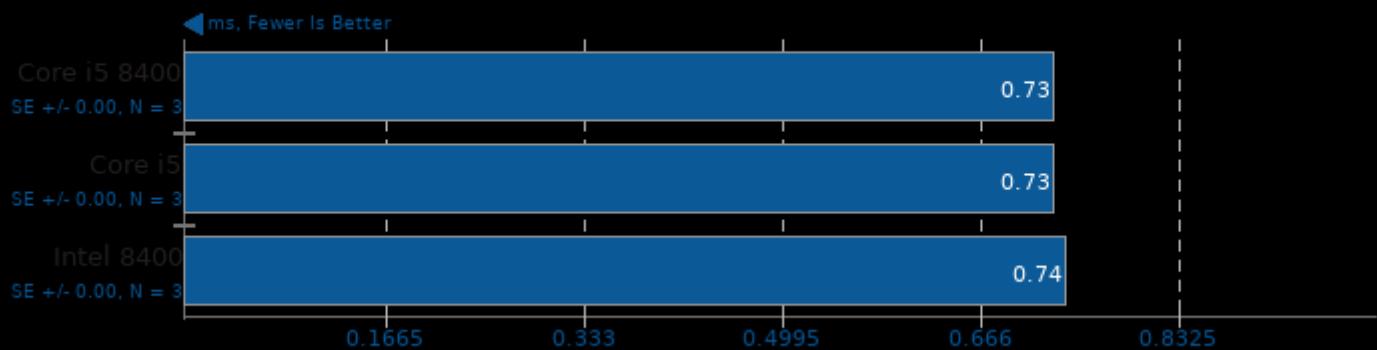
Model: Age Gender Recognition Retail 0013 FP32 - Device: CPU



Core i5 8400 Xmas

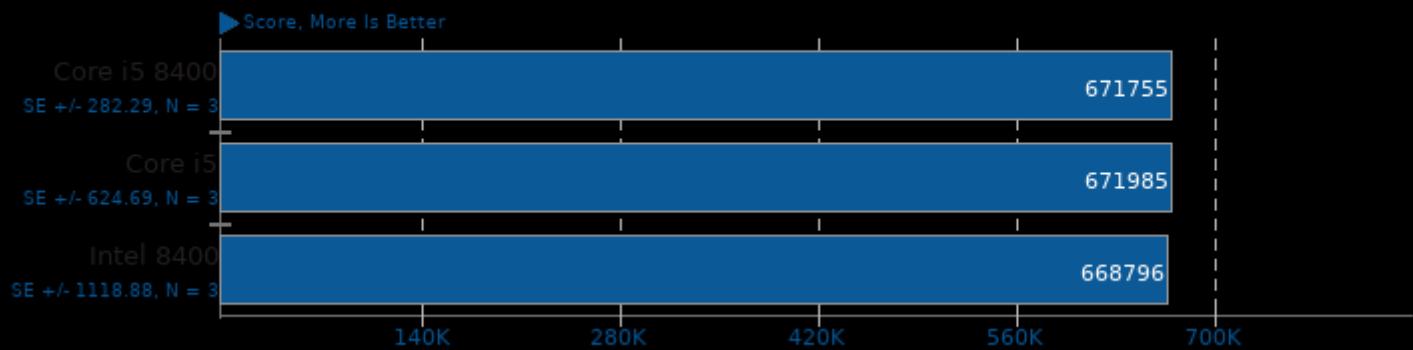
OpenVINO 2021.1

Model: Age Gender Recognition Retail 0013 FP32 - Device: CPU



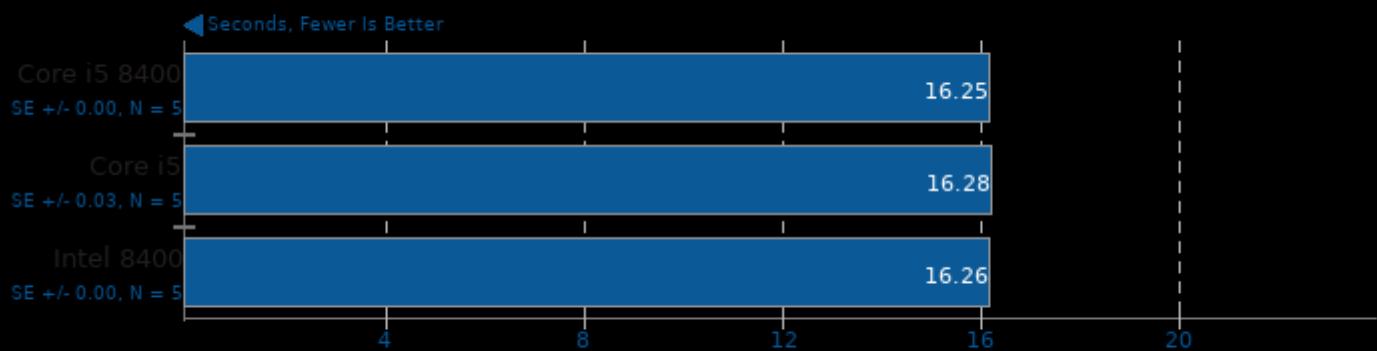
PHPBench 0.8.1

PHP Benchmark Suite



WavPack Audio Encoding 5.3

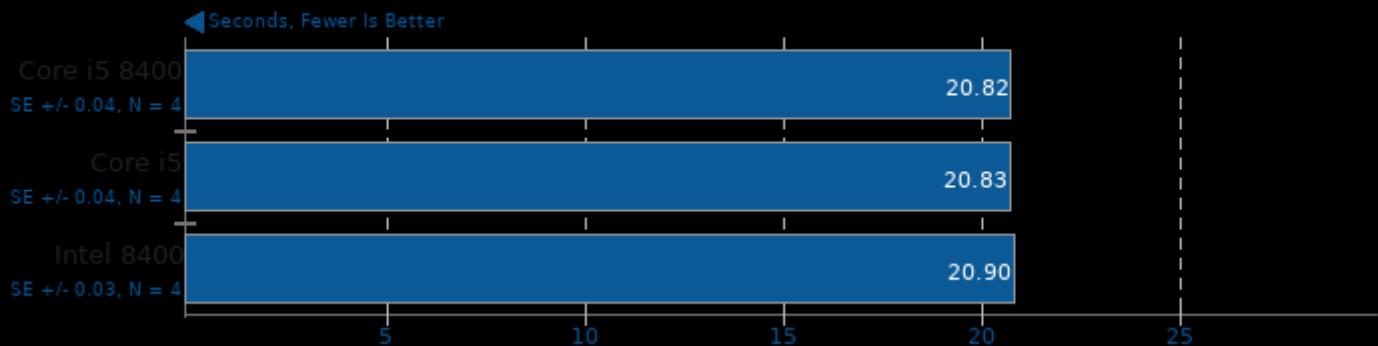
WAV To WavPack



1. (CXX) g++ options: -rdynamic

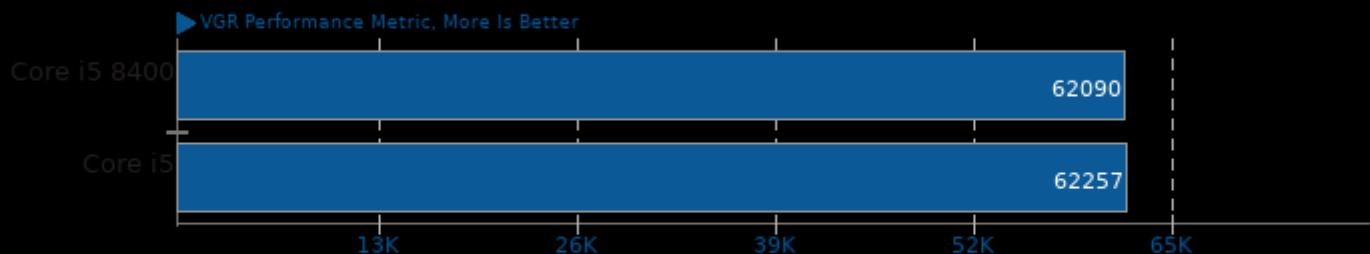
Unpacking Firefox 84.0

Extracting: firefox-84.0.source.tar.xz



BRL-CAD 7.30.8

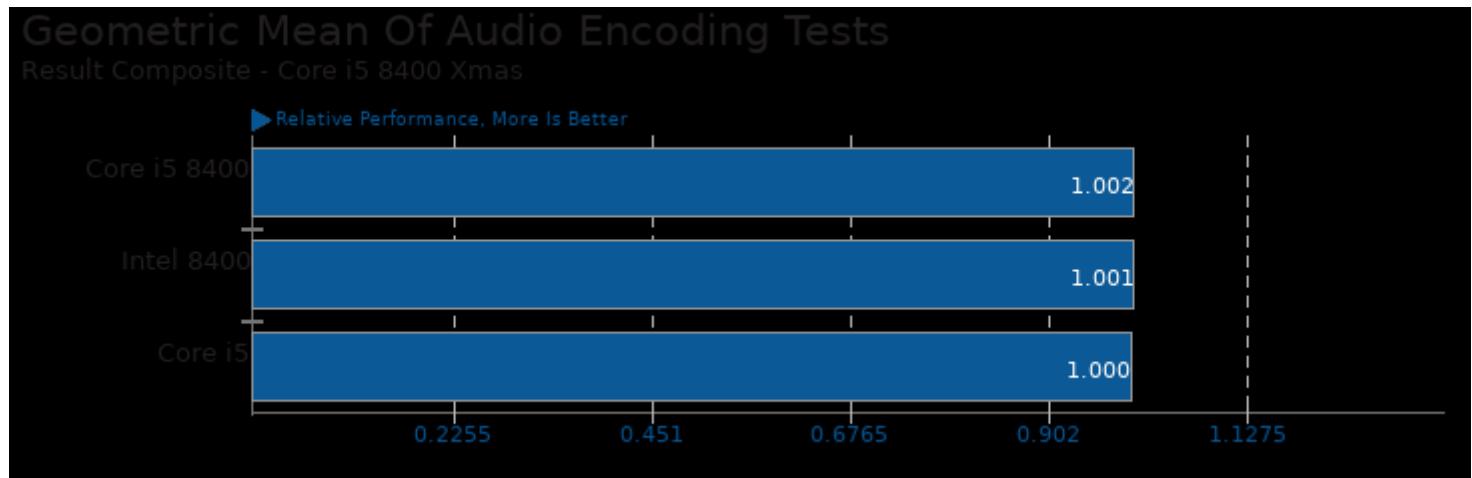
VGR Performance Metric



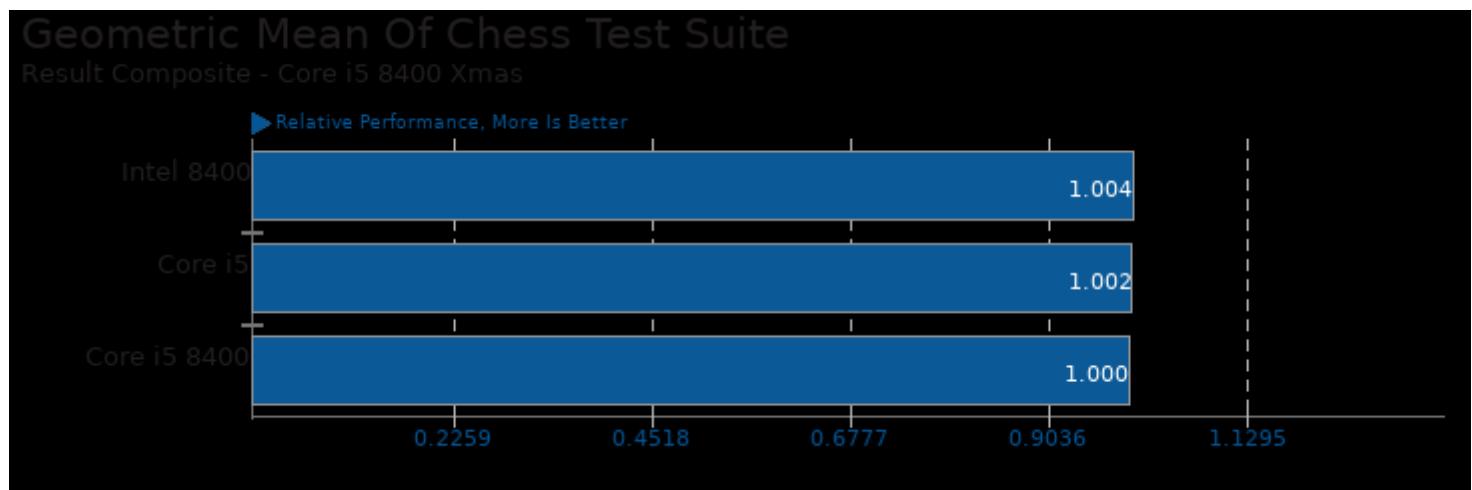
1. (CXX) g++ options: -std=c++11 -pipe -fno-strict-aliasing -fno-common -fexceptions -ftemplate-depth=128 -m64 -ggdb3 -O3 -fipa-pta -fstrength-reduce

Core i5 8400 Xmas

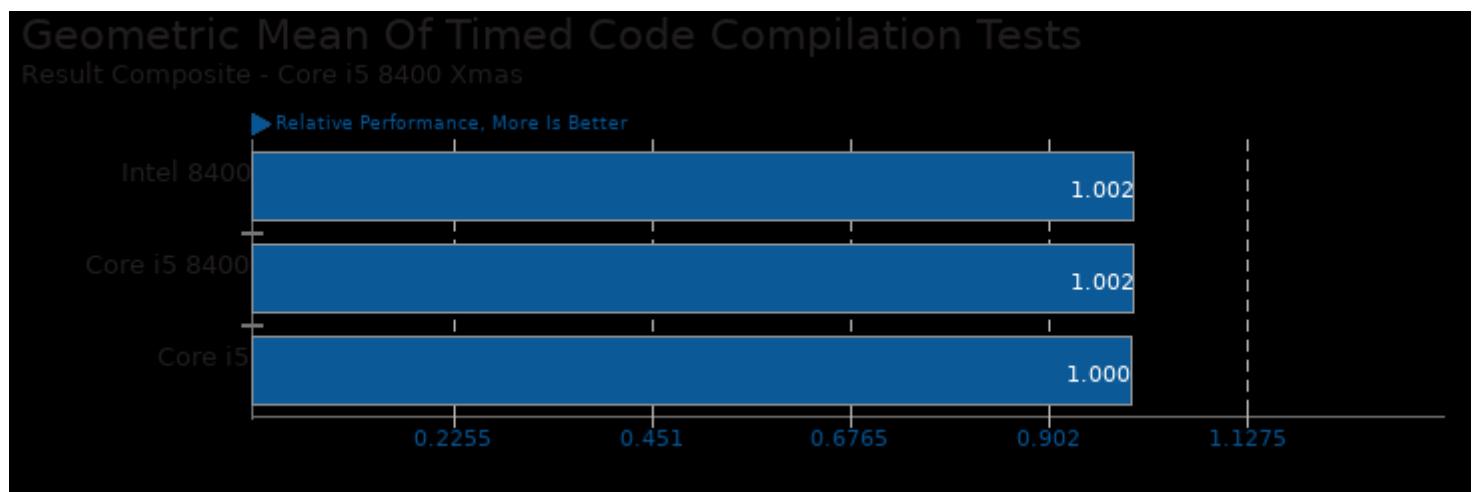
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/encode-ogg, pts/encode-ape, pts/encode-wavpack and pts/encode-opus



Geometric mean based upon tests: pts/crafty, pts/stockfish and pts/asmfish

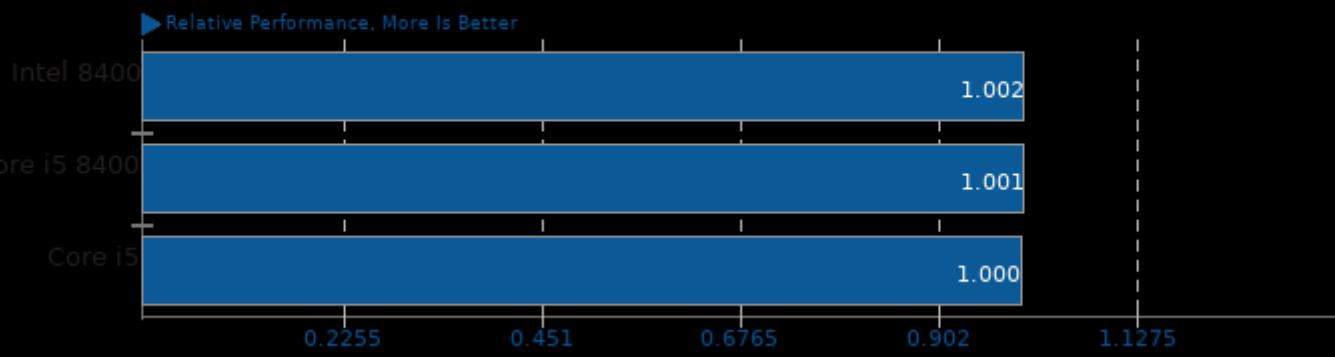


Geometric mean based upon tests: pts/build-eigen, pts/build-ffmpeg and pts/build2

Core i5 8400 Xmas

Geometric Mean Of C/C++ Compiler Tests

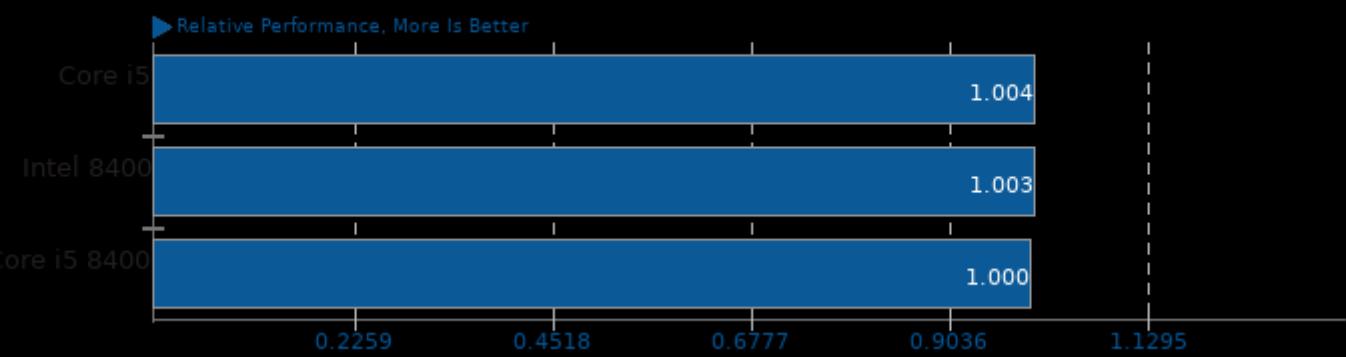
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/stockfish, pts/hammer, pts/sqlite-speedtest, pts/clomp and pts/build-ffmpeg

Geometric Mean Of CPU Massive Tests

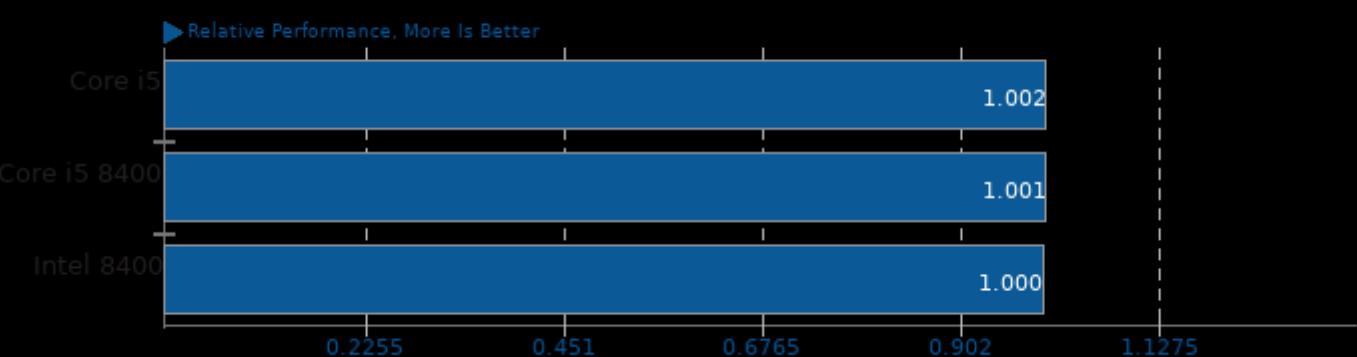
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/asmfish, pts/brl-cad, pts/crafty, pts/hammer, pts/onnednn, pts/phpbench, pts/stockfish and pts/clomp

Geometric Mean Of Creator Workloads Tests

Result Composite - Core i5 8400 Xmas

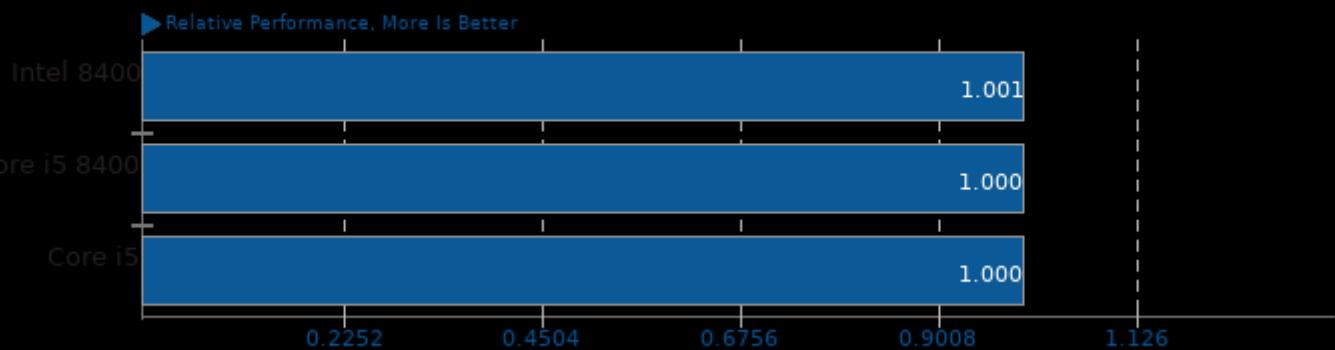


Geometric mean based upon tests: pts/rav1e, pts/encode-ogg, pts/encode-ape, pts/encode-wavpack, pts/encode-opus, pts/onnednn, pts/openvino, pts/astcenc and pts/brl-cad

Core i5 8400 Xmas

Geometric Mean Of Encoding Tests

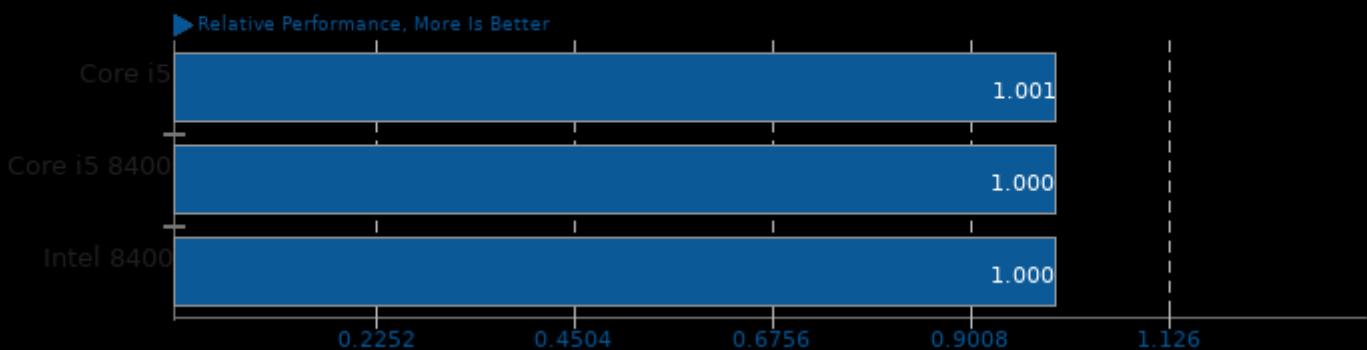
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/encode-ogg, pts/encode-ape, pts/encode-wavpack, pts/encode-opus and pts/rav1e

Geometric Mean Of HPC - High Performance Computing Tests

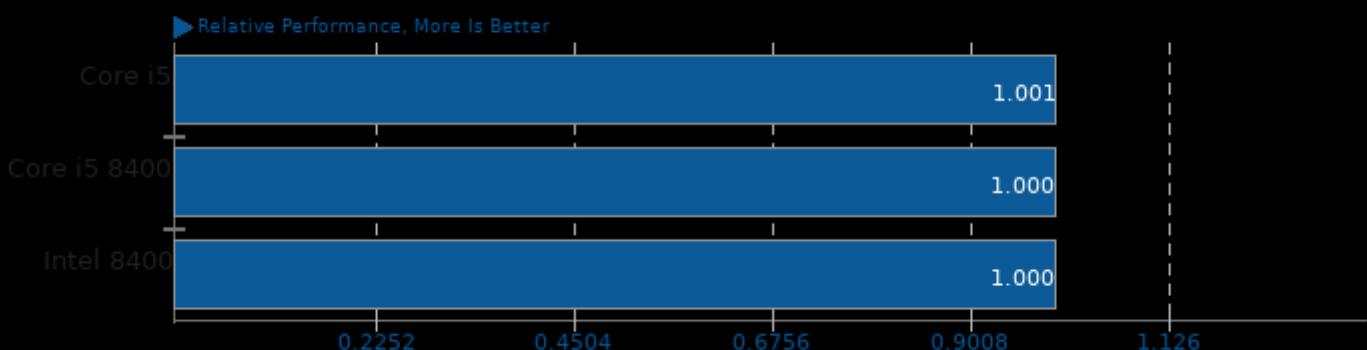
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/hmmer, pts/ncnn, pts/onnednn and pts/openvino

Geometric Mean Of Machine Learning Tests

Result Composite - Core i5 8400 Xmas

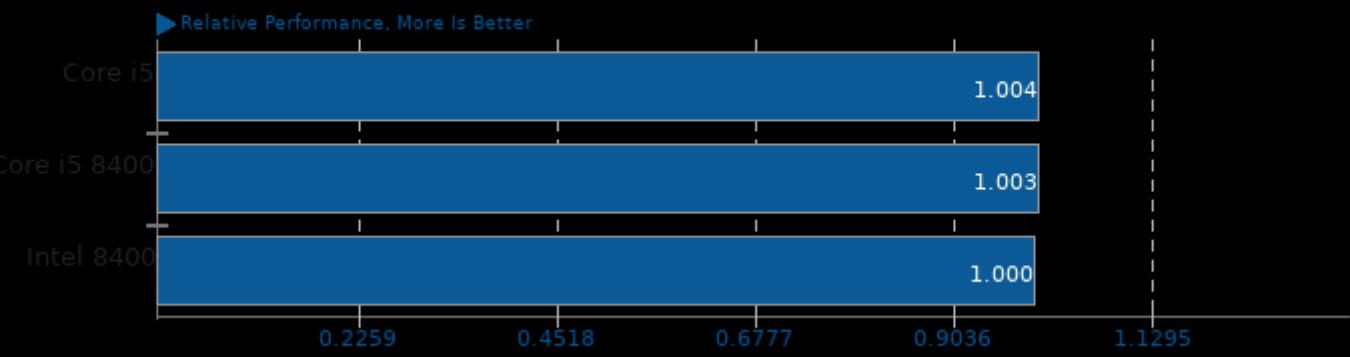


Geometric mean based upon tests: pts/ncnn, pts/onnednn and pts/openvino

Core i5 8400 Xmas

Geometric Mean Of Multi-Core Tests

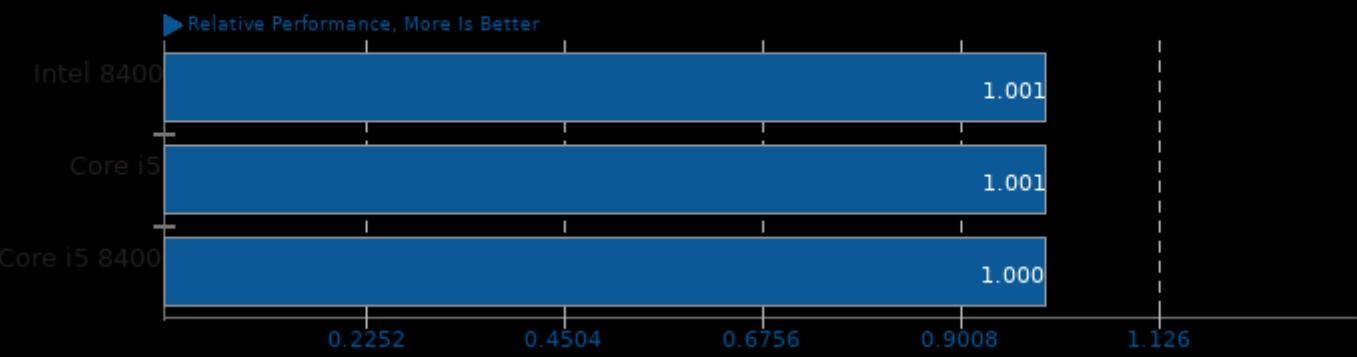
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/stockfish, pts/coremark, pts/rav1e, pts/asmfish, pts/onnednn, pts/build-eigen, pts/build-ffmpeg, pts/build2 and pts/openvino

Geometric Mean Of NVIDIA GPU Compute Tests

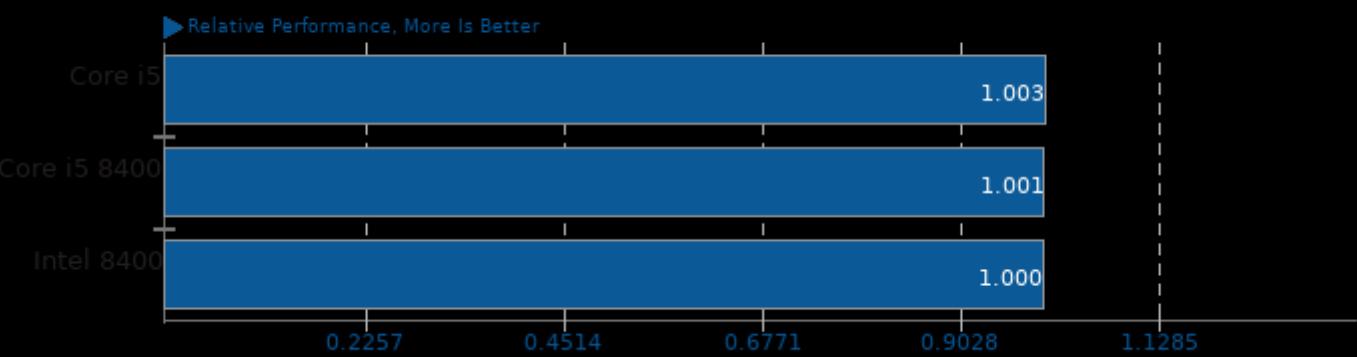
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/vkfft, pts/vkresample and pts/ncnn

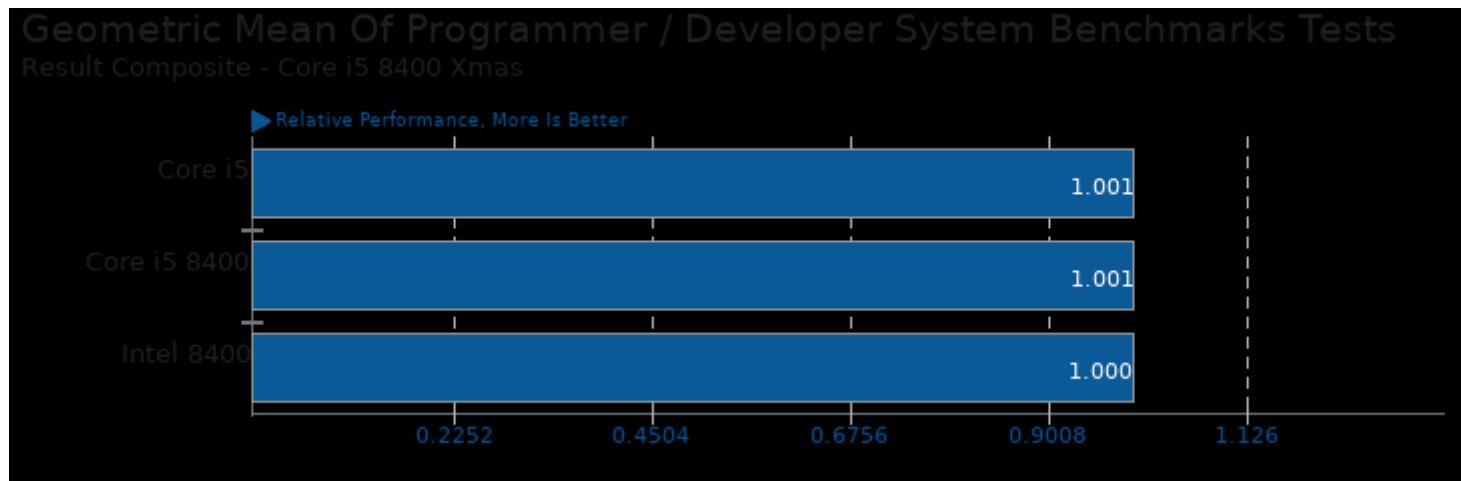
Geometric Mean Of Intel oneAPI Tests

Result Composite - Core i5 8400 Xmas

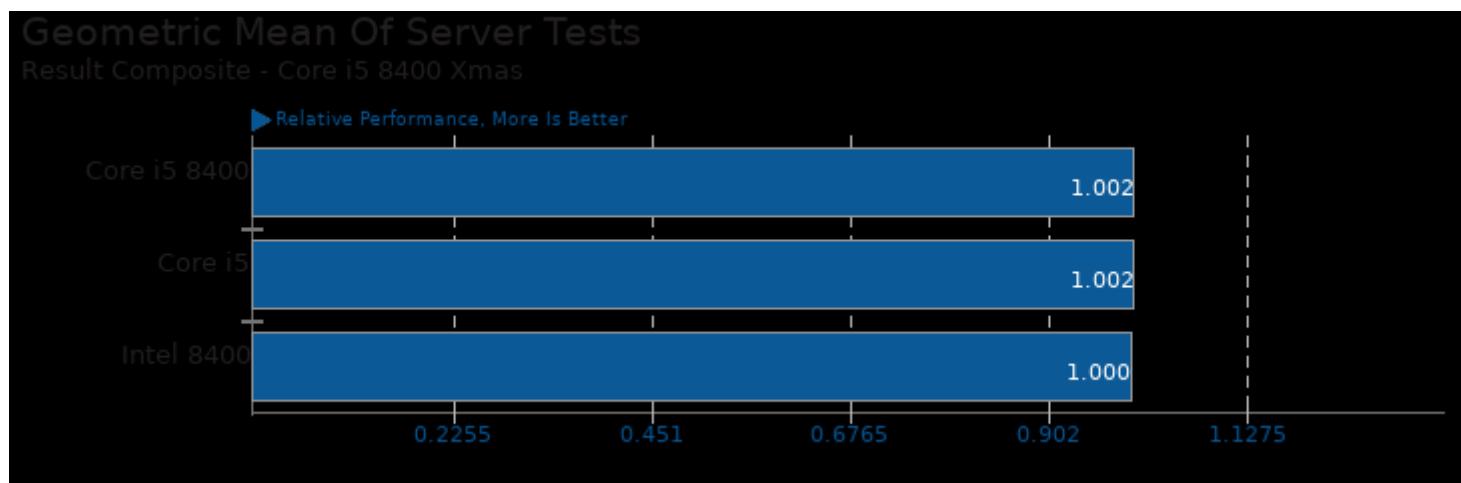


Geometric mean based upon tests: pts/onnednn and pts/openvino

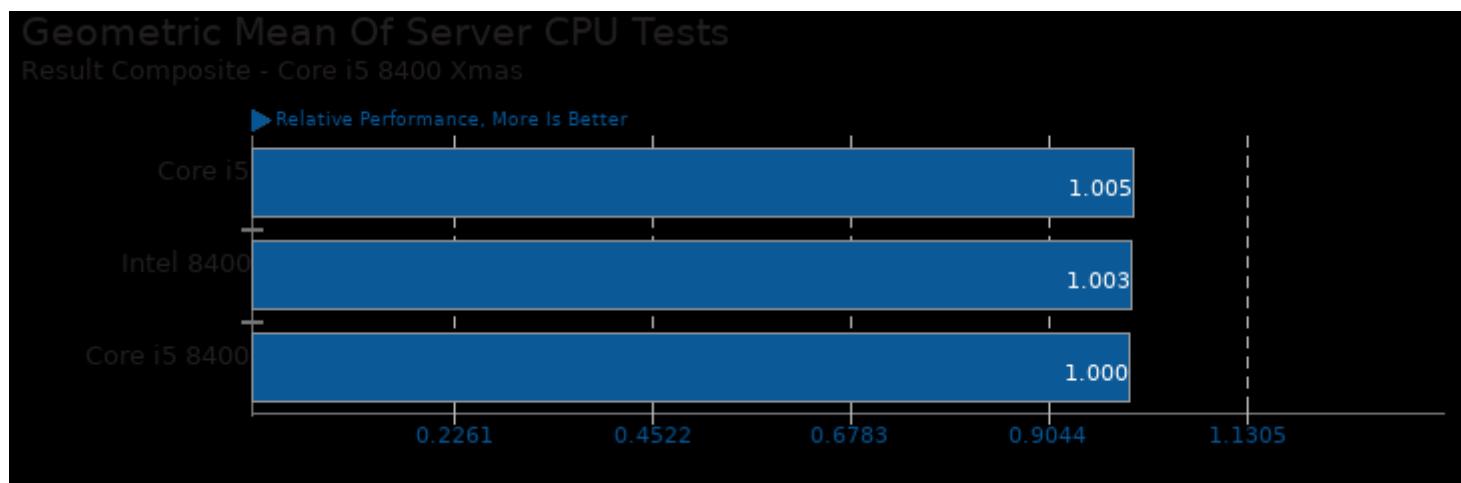
Core i5 8400 Xmas



Geometric mean based upon tests: pts/simdjson, pts/sqlite-speedtest, pts/node-web-tooling, pts/build-eigen, pts/build-ffmpeg and pts/build2



Geometric mean based upon tests: pts/phpbench, pts/simdjson, pts/node-web-tooling and pts/sqlite-speedtest

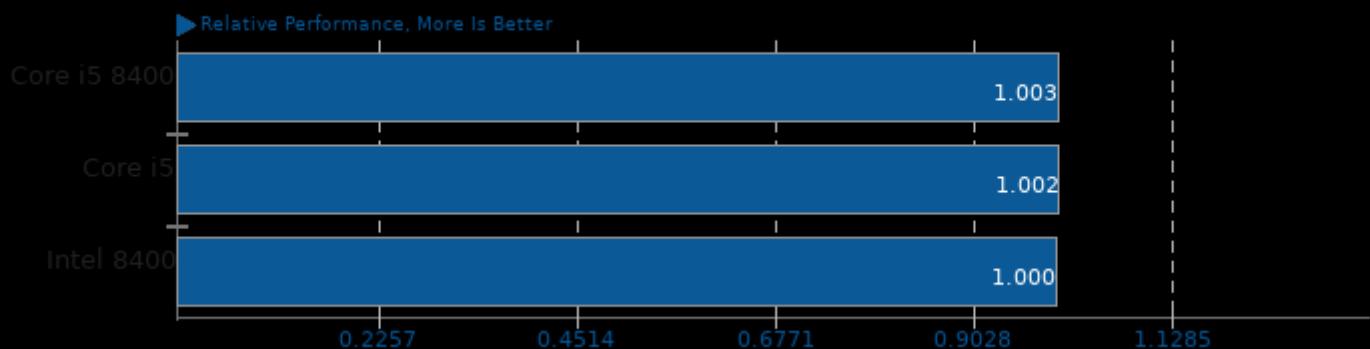


Geometric mean based upon tests: pts/onnednn, pts/stockfish, pts/asmfish and pts/phpbench

Core i5 8400 Xmas

Geometric Mean Of Single-Threaded Tests

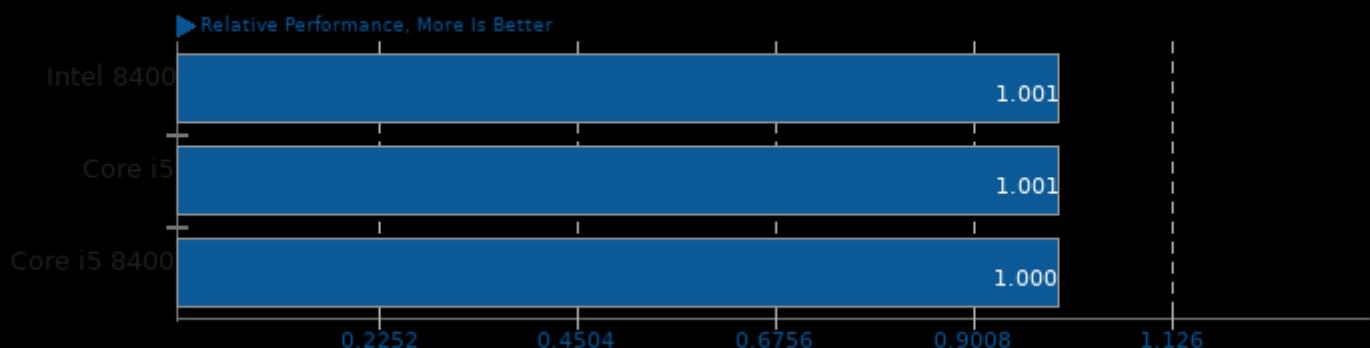
Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/encode-ogg and pts/phpbench

Geometric Mean Of Vulkan Compute Tests

Result Composite - Core i5 8400 Xmas



Geometric mean based upon tests: pts/vkfft, pts/vkresample and pts/ncnn

This file was automatically generated via the Phoronix Test Suite benchmarking software on Friday, 29 March 2024 07:18.