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WOW-BENCHMARK-UDOOBOLTV3-FINAL

ARMv8 Cortex-A72 testing on Ubuntu 20.04 via the Phoronix Test Suite.

Automated Executive Summary

AMD Ryzen Embedded V1202B had the most wins, coming in first place for 92% of the tests.

Based on the geometric mean of all complete results, the fastest (AMD Ryzen Embedded V1202B) was 2.018x the speed of the slowest (ARMv8 Cortex-A72).

Test Systems:

AMD Ryzen Embedded V1202B

Processor: AMD Ryzen Embedded V1202B @ 2.30GHz (2 Cores / 4 Threads), Motherboard: Seco C40 (1.05 R.C. 8 BIOS), Chipset: AMD Raven/Raven2, Memory: 16GB, Disk: 31GB DF4032, Graphics: AMD Radeon Vega / Mobile 1GB (1000/1200MHz), Audio: AMD Raven/Raven2/Fenghuang, Network: Realtek RTL8111/8168/8411

OS: Ubuntu 20.04, Kernel: 5.11.0-38-generic (x86_64), Desktop: GNOME Shell 3.36.9, Display Server: X Server 1.20.11, Vulkan: 1.0.2, Compiler: GCC 9.3.0, File-System: ext4, Screen Resolution: 1920x1080

Kernel Notes: Transparent Huge Pages: madvise
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: acpi-cpufreq ondemand (Boost: Enabled) - CPU Microcode: 0x810100b
Python Notes: Python 3.8.10
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Mitigation of SSB disabled via prctl and seccomp + spectre_v1: Mitigation of usercopy/swapgs barriers and __user pointer sanitization + spectre_v2: Mitigation of Full AMD retpoline IBPB: conditional STIBP: disabled RSB filling + srbds: Not affected + tsx_async_abort: Not affected

ARMv8 Cortex-A72

Processor: ARMv8 Cortex-A72 @ 1.50GHz (4 Cores), Motherboard: BCM2835 Raspberry Pi 4 Model B Rev 1.4, Memory: 8GB, Disk: 32GB USD

OS: Ubuntu 20.04, Kernel: 5.4.0-1045-raspi (aarch64), Compiler: GCC 9.3.0, File-System: ext4

Kernel Notes: snd_bcm2835.enable_compat_alsa=0 snd_bcm2835.enable_hdmi=1
Compiler Notes: --build=aarch64-linux-gnu --disable-libquadmath --disable-libquadmath-support --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-fix-cortex-a53-843419 --enable-gnu-unique-object --enable-languages=c,ada,c++,go,d,fortran,objc,obj-c++,gm2 --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-nls --enable-objc-gc=auto --enable-plugin --enable-shared --enable-threads=posix --host=aarch64-linux-gnu --program-prefix=aarch64-linux-gnu- --target=aarch64-linux-gnu --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-target-system-zlib=auto -v
Processor Notes: Scaling Governor: cpufreq-dt ondemand
Python Notes: Python 3.8.10
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Mitigation of __user pointer sanitization + spectre_v2: Vulnerable + srbds: Not affected + tsx_async_abort: Not affected

	AMD Ryzen Embedded V1202B	ARMv8 Cortex-A72
BYTE Unix Benchmark - Dhrystone 2 (LPS)	**30794020**	**10726837**
Normalized	100%	34.83%
Standard Deviation	1.3%	0.7%
7-Zip Compression - C.S.T (MIPS)	**9024**	**3650**
Normalized	100%	40.45%
Standard Deviation	0.5%	0.4%
PyBench - T.F.A.T.T (Milliseconds)	**1395**	**4504**
Normalized	100%	30.97%
Standard Deviation	0.1%	0.8%
PyPerformance - chaos (Milliseconds)	**173**	**532**
Normalized	100%	32.52%
Standard Deviation		0.4%
PyPerformance - float (Milliseconds)	**160**	**573**
Normalized	100%	27.92%
Standard Deviation		0.6%
PyPerformance - nbody (Milliseconds)	**194**	**558**
Normalized	100%	34.77%
Standard Deviation	0.3%	0.2%
PyPerformance - pathlib (Milliseconds)	**27.6**	**219**
Normalized	100%	12.6%
Standard Deviation	0%	

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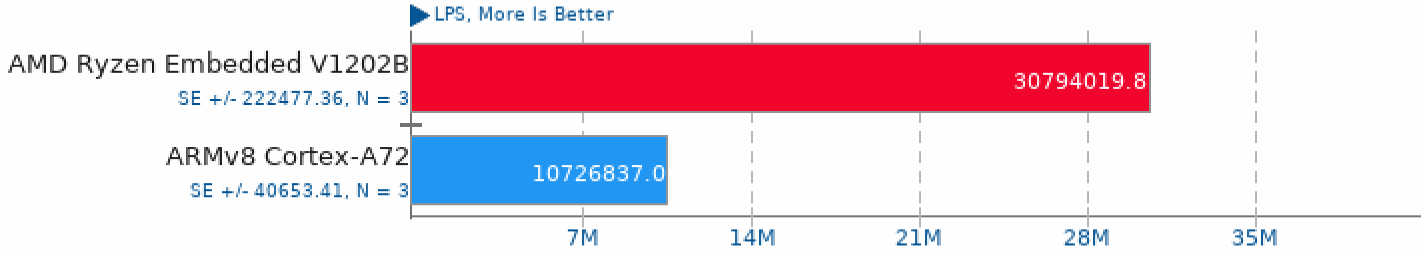
PyPerformance - json_loads (Milliseconds)	**37.9**	**113**
Normalized	100%	33.54%
Standard Deviation	0.4%	
PyPerformance - crypto_pyaes (Milliseconds)	**155**	**502**
Normalized	100%	30.88%
PyPerformance - regex_compile (Milliseconds)	**251**	**834**
Normalized	100%	30.1%
Standard Deviation		0.1%
PyPerformance - python_startup (Milliseconds)	**12.9**	**50.1**
Normalized	100%	25.75%
Standard Deviation	2.1%	0.1%
PyPerformance - django_template (Milliseconds)	**85.8**	**323**
Normalized	100%	26.56%
Standard Deviation	0.2%	0.2%
PyPerformance - pickle_pure_python (Milliseconds)	**757**	**2.58**
Normalized	0.34%	100%
Standard Deviation		0.2%

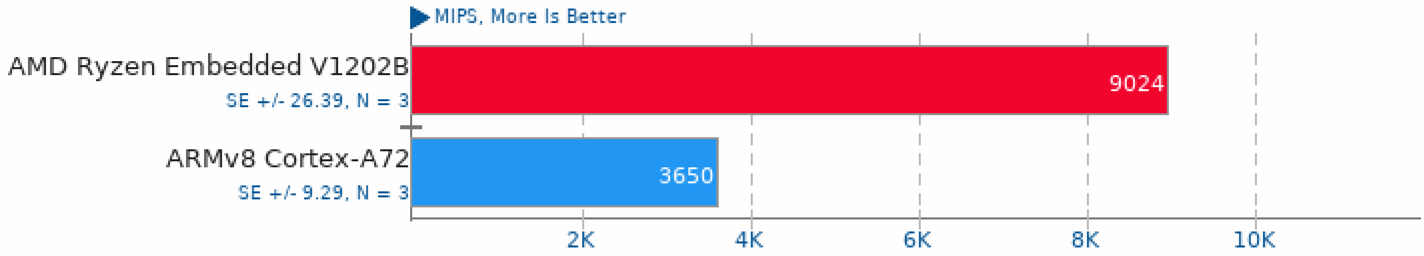
BYTE Unix Benchmark 3.6

Computational Test: Dhrystone 2



7-Zip Compression 16.02

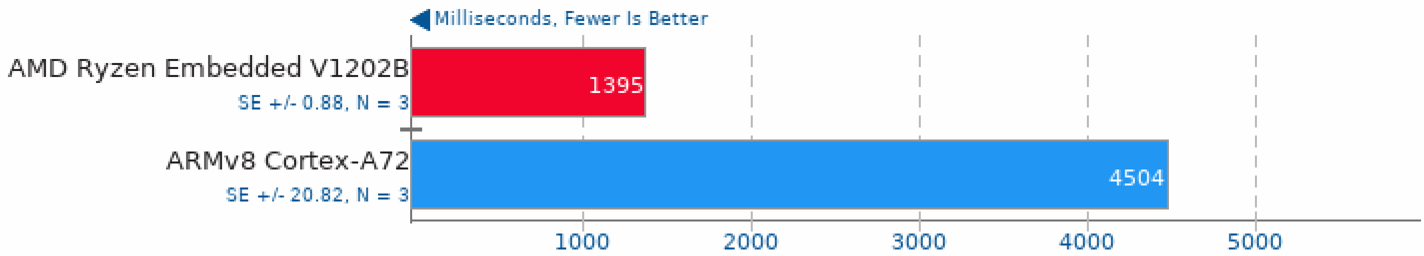
Compress Speed Test



1. (CXX) g++ options: -pipe -lpthread

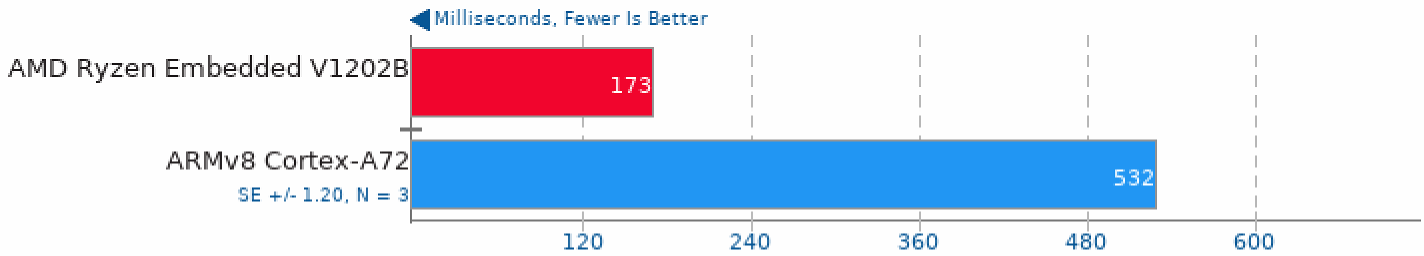
PyBench 2018-02-16

Total For Average Test Times

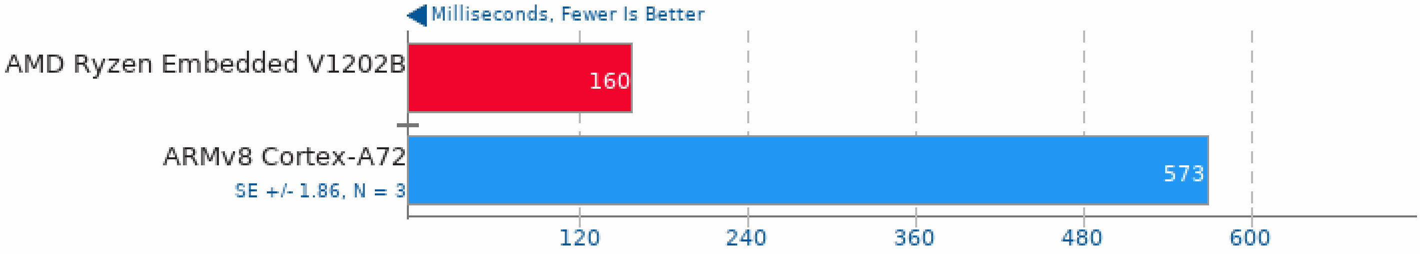


PyPerformance 1.0.0

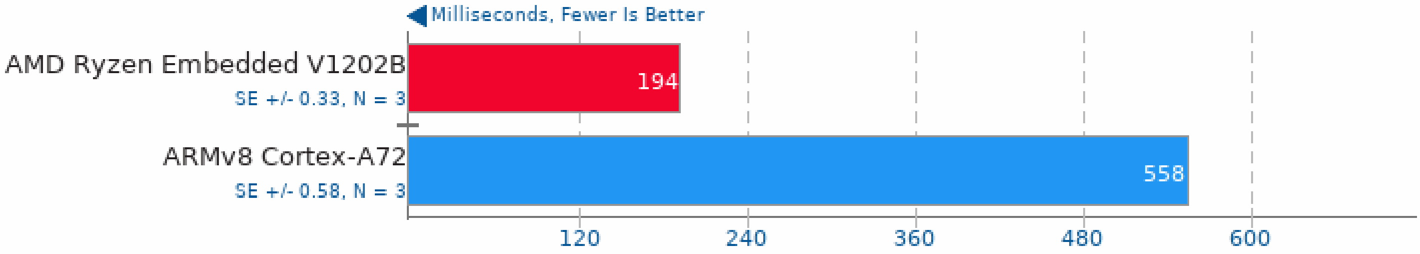
Benchmark: chaos



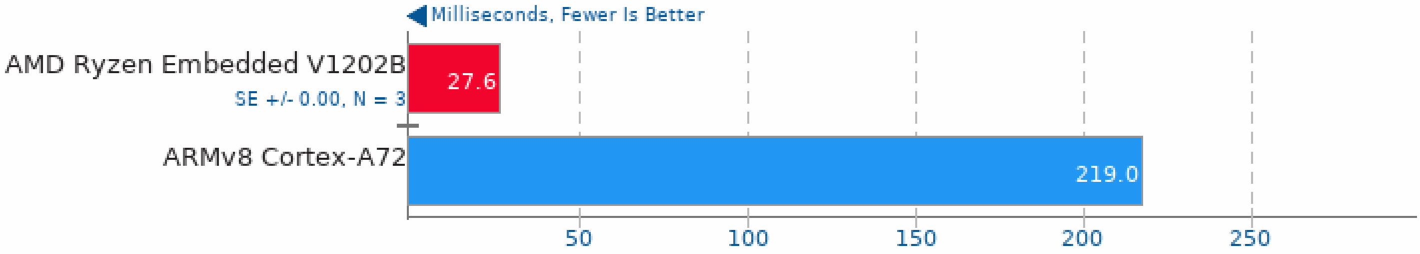
PyPerformance 1.0.0
Benchmark: float



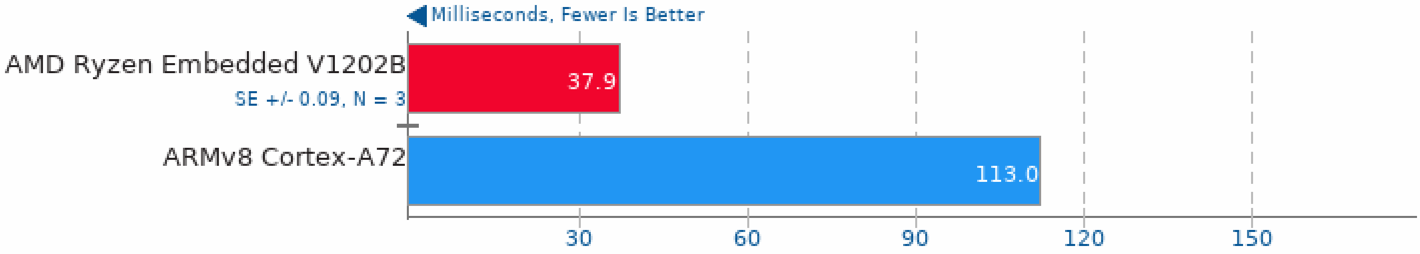
PyPerformance 1.0.0
Benchmark: nbody



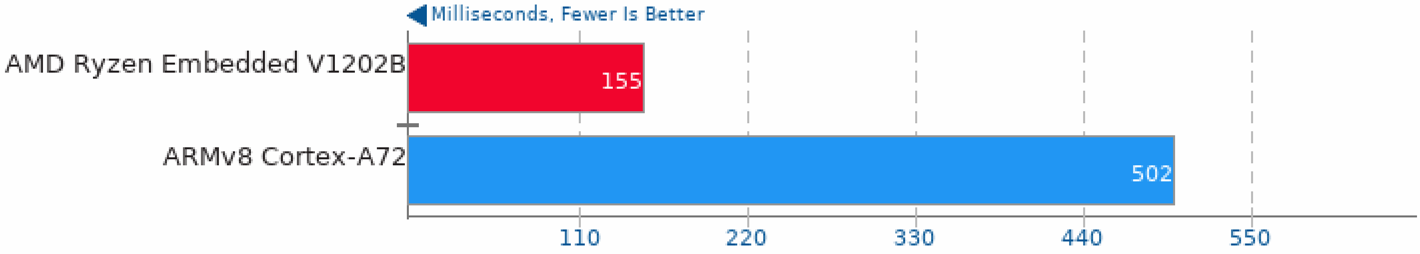
PyPerformance 1.0.0
Benchmark: pathlib



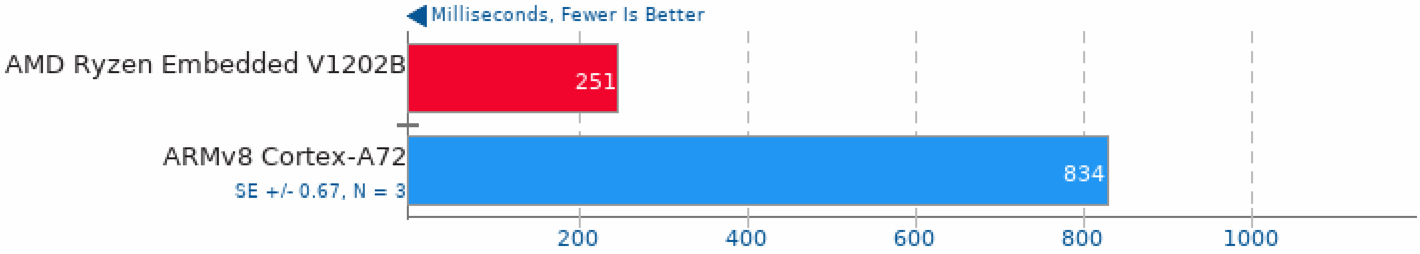
PyPerformance 1.0.0
Benchmark: json_loads



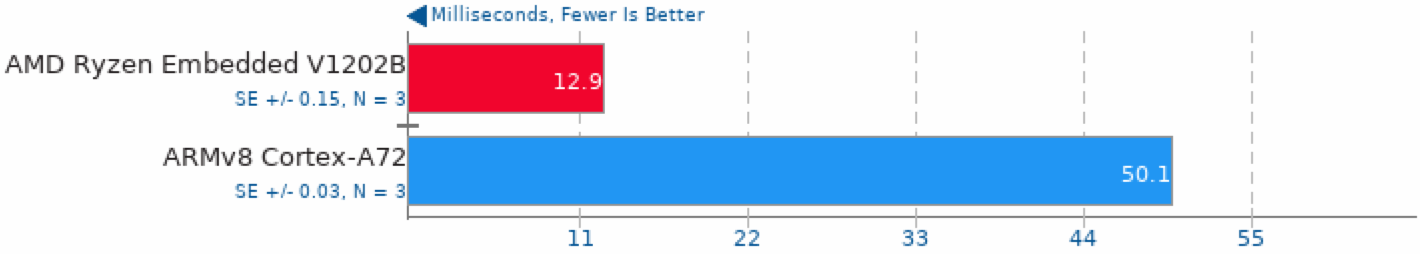
PyPerformance 1.0.0
Benchmark: crypto_pyaes



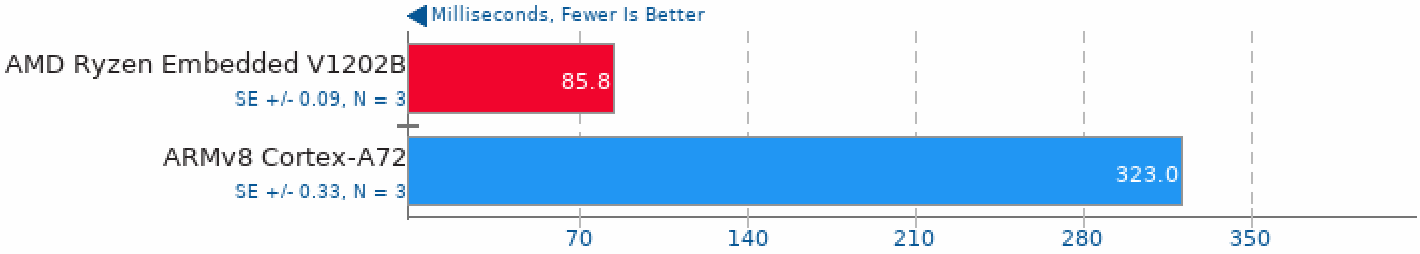
PyPerformance 1.0.0
Benchmark: regex_compile



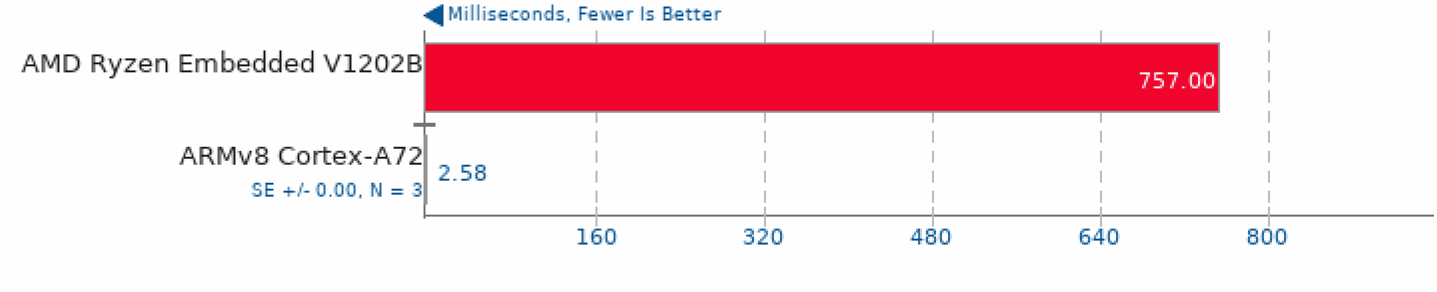
PyPerformance 1.0.0
Benchmark: python_startup



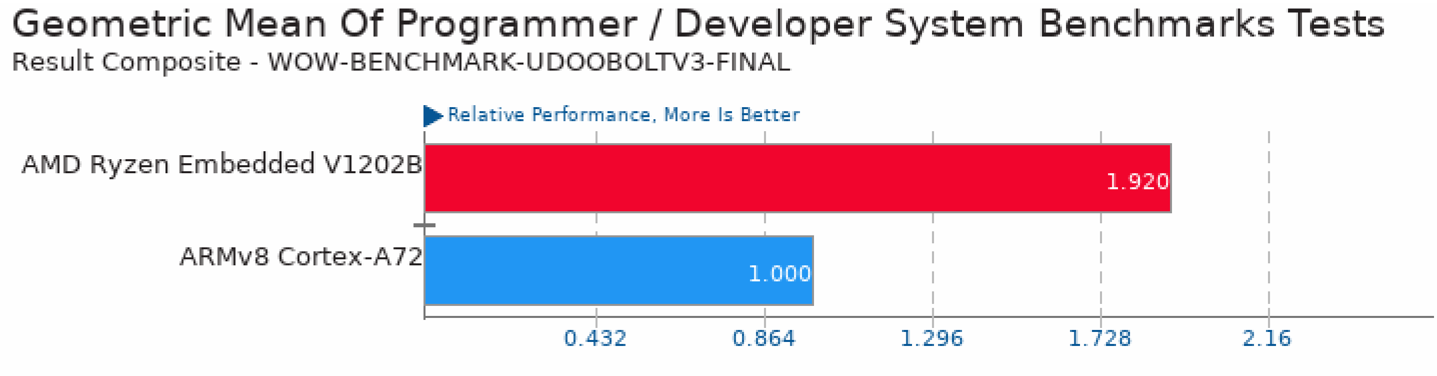
PyPerformance 1.0.0
Benchmark: django_template



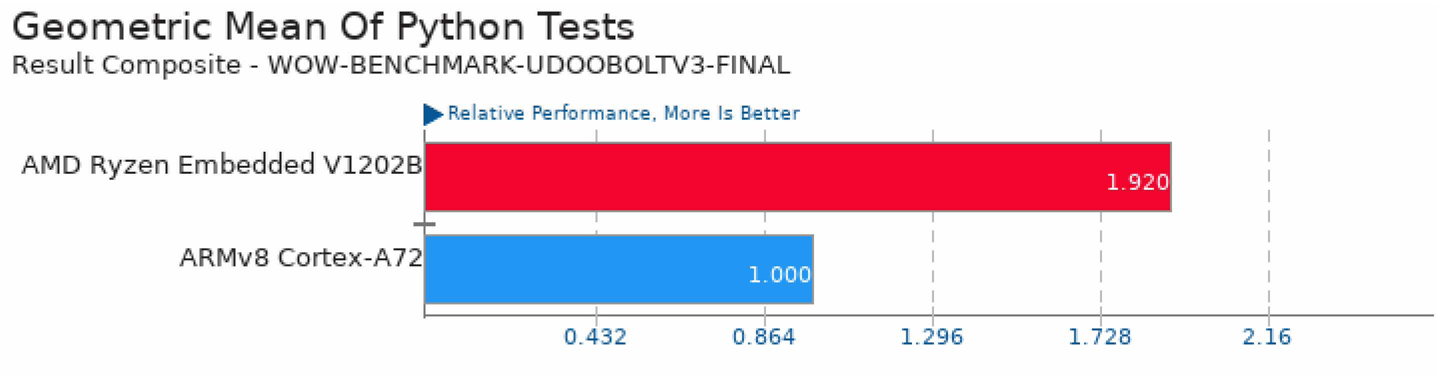
PyPerformance 1.0.0
Benchmark: pickle_pure_python



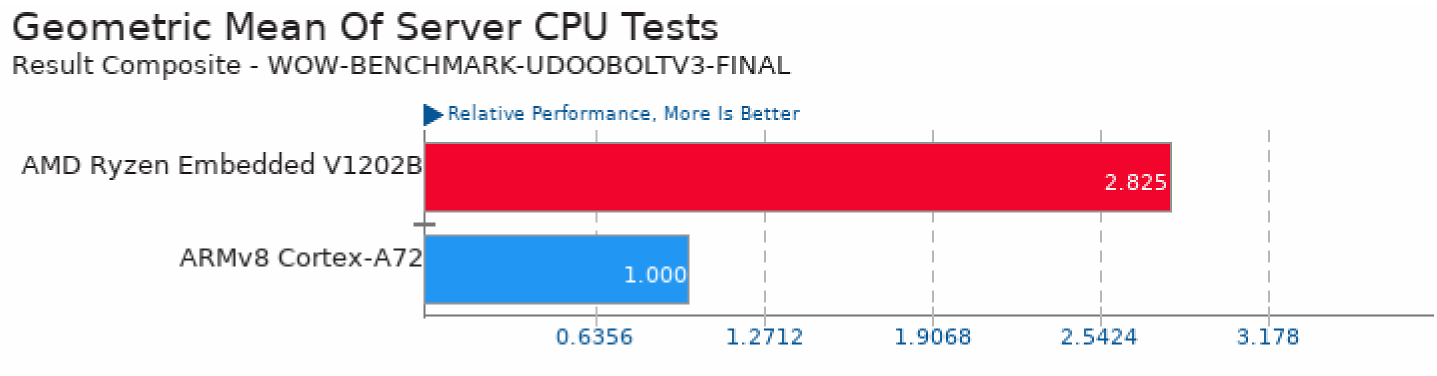
These geometric means are based upon test groupings / test suites for this result file.



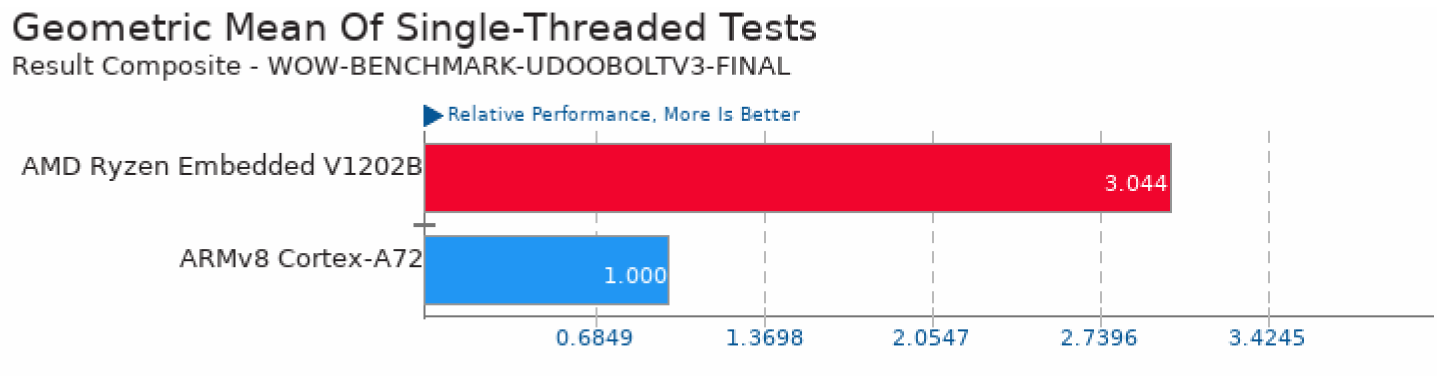
Geometric mean based upon tests: pts/pyperformance and pts/pybench



Geometric mean based upon tests: pts/pybench and pts/pyperformance



Geometric mean based upon tests: pts/compress-7zip and pts/pybench



Geometric mean based upon tests: pts/byte and pts/pybench

This file was automatically generated via the Phoronix Test Suite benchmarking software on Saturday, 21 May 2022 04:17.