

www.phoronix-test-suite.com

xeon aug

Intel Xeon Silver 4216 testing with a TYAN S7100AG2NR (V4.02 BIOS) and ASPEED on Debian 11 via the Phoronix Test Suite.

Automated Executive Summary

A had the most wins, coming in first place for 54% of the tests.

Based on the geometric mean of all complete results, the fastest (A) was 1.003x the speed of the slowest (B).

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

Apache Spark (Row Count: 1000000 - Partitions: 100 - Broadcast Inner Join Test Time) at 1.322x
Apache Spark (Row Count: 1000000 - Partitions: 100 - Repartition Test Time) at 1.173x
Apache Spark (Row Count: 10000000 - Partitions: 100 - Inner Join Test Time) at 1.121x
Apache Spark (Row Count: 20000000 - Partitions: 2000 - SHA-512 Benchmark Time) at 1.117x
Apache Spark (Row Count: 10000000 - Partitions: 500 - Inner Join Test Time) at 1.115x
Apache Spark (Row Count: 10000000 - Partitions: 1000 - SHA-512 Benchmark Time) at 1.083x
Apache Spark (Row Count: 10000000 - Partitions: 2000 - Inner Join Test Time) at 1.075x
Apache Spark (Row Count: 1000000 - Partitions: 500 - Inner Join Test Time) at 1.074x
Apache Spark (Row Count: 40000000 - Partitions: 1000 - SHA-512 Benchmark Time) at 1.073x
Apache Spark (Row Count: 1000000 - Partitions: 1000 - Inner Join Test Time) at 1.071x.

Test Systems:

A

B

Processor: Intel Xeon Silver 4216 @ 3.20GHz (16 Cores / 32 Threads), Motherboard: TYAN S7100AG2NR (V4.02 BIOS), Chipset: Intel Sky Lake-E DMI3 Registers, Memory: 46GB, Disk: 240GB Corsair Force MP500, Graphics: ASPEED, Audio: Realtek ALC892, Network: 2 x Intel I350

OS: Debian 11, Kernel: 5.10.0-10-amd64 (x86_64), Display Server: X Server, Vulkan: 1.0.2, Compiler: GCC 10.2.1 20210110, File-System: ext4, Screen Resolution: 1024x768

Kernel Notes: Transparent Huge Pages: always
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-bootstrap --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++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-link-mutex --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-Km9U7s/gcc-10-10.2.1/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-Km9U7s/gcc-10-10.2.1/debian/tmp-gcn/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-build-config=bootstrap-lto-lean --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 (EPP: balance_performance) - CPU Microcode: 0x500002c
Java Notes: OpenJDK Runtime Environment (build 11.0.14+9-post-Debian-1deb11u1)
Python Notes: Python 3.9.2
Security Notes: itlb_multihit: KVM: Mitigation of VMX disabled + 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 Enhanced IBRS IBPB: conditional RSB filling + srbds: Not affected + tsx_async_abort: Mitigation of TSX disabled

	A	B
SVT-AV1 - Preset 4 - Bosphorus 4K (FPS)	**1.175**	**1.18**
Normalized	99.58%	100%
SVT-AV1 - Preset 8 - Bosphorus 4K (FPS)	**29.266**	**28.991**
Normalized	100%	99.06%
SVT-AV1 - Preset 10 - Bosphorus 4K (FPS)	**55.516**	**56.241**
Normalized	98.71%	100%
SVT-AV1 - Preset 12 - Bosphorus 4K (FPS)	**84.27**	**84.683**
Normalized	99.51%	100%
SVT-AV1 - Preset 4 - Bosphorus 1080p (FPS)	**3.076**	**3.094**
Normalized	99.42%	100%
SVT-AV1 - Preset 8 - Bosphorus 1080p (FPS)	**64.445**	**66.048**
Normalized	97.57%	100%
SVT-AV1 - Preset 10 - Bosphorus 1080p (FPS)	**142.248**	**139.877**
Normalized	100%	98.33%
SVT-AV1 - Preset 12 - Bosphorus 1080p (FPS)	**169.97**	**175.251**
Normalized	96.99%	100%
Aircrack-ng (k/s)	**37537**	**37546**
Normalized	99.98%	100%
ASTC Encoder - Fast (MT/s)	**143.275**	**143.0921**
Normalized	100%	99.87%
ASTC Encoder - Medium (MT/s)	**53.5412**	**53.5353**
Normalized	100%	99.99%
ASTC Encoder - Thorough (MT/s)	**6.9001**	**6.9138**

xeon aug

Normalized	99.8%	100%
ASTC Encoder - Exhaustive (MT/s)	0.6972	0.6968
Normalized	100%	99.94%
LAMMPS Molecular Dynamics Simulator - 20k Atoms (ns/day)	8.357	8.337
Normalized	100%	99.76%
LAMMPS Molecular Dynamics Simulator - Rhodopsin Protein (ns/day)	7.79	8.157
Normalized	95.5%	100%
Node.js V8 Web Tooling Benchmark (runs/s)	8.37	8.34
Normalized	100%	99.64%
Primesieve - 1e12 (sec)	18.382	18.43
Normalized	100%	99.74%
Primesieve - 1e13 (sec)	218.432	218.034
Normalized	99.82%	100%
Apache Spark - 1000000 - 100 - S.S.B.T (sec)	4.87	4.55
Normalized	93.43%	100%
Apache Spark - 1000000 - 100 - C.P.B (sec)	165.525662302	164.858251247
Normalized	99.6%	100%
Apache Spark - 1000000 - 100 - C.P.B.U.D (sec)	9.32	9.36
Normalized	100%	99.57%
Apache Spark - 1000000 - 100 - Group By Test Time (sec)	5.95	6.06
Normalized	100%	98.18%
Apache Spark - 1000000 - 100 - R.T.T (sec)	2.08	2.44
Normalized	100%	85.25%
Apache Spark - 1000000 - 100 - I.J.T.T (sec)	2.27	2.41
Normalized	100%	94.19%
Apache Spark - 1000000 - 100 - B.I.J.T.T (sec)	1.71	2.26
Normalized	100%	75.66%
Apache Spark - 1000000 - 500 - S.S.B.T (sec)	4.98	4.72
Normalized	94.78%	100%
Apache Spark - 1000000 - 500 - C.P.B (sec)	165.222241482	163.861869284
Normalized	99.18%	100%
Apache Spark - 1000000 - 500 - C.P.B.U.D (sec)	9.17	9.34
Normalized	100%	98.18%
Apache Spark - 1000000 - 500 - Group By Test Time (sec)	5.71	5.90
Normalized	100%	96.78%
Apache Spark - 1000000 - 500 - R.T.T (sec)	2.53	2.56
Normalized	100%	98.83%
Apache Spark - 1000000 - 500 - I.J.T.T (sec)	2.04	2.19
Normalized	100%	93.15%
Apache Spark - 1000000 - 500 - B.I.J.T.T (sec)	1.60	1.67
Normalized	100%	95.81%
Apache Spark - 1000000 - 1000 - S.S.B.T (sec)	4.82	4.71
Normalized	97.72%	100%
Apache Spark - 1000000 - 1000 - C.P.B (sec)	165.262615715	165.024355195
Normalized	99.86%	100%
Apache Spark - 1000000 - 1000 - C.P.B.U.D (sec)	9.249047968	9.22
Normalized	99.69%	100%

Apache Spark - 1000000 - 1000 - Group By Test Time (sec)	5.95	5.97
Normalized	100%	99.66%
Apache Spark - 1000000 - 1000 - R.T.T (sec)	2.44	2.36
Normalized	96.72%	100%
Apache Spark - 1000000 - 1000 - I.J.T.T (sec)	2.42	2.26
Normalized	93.39%	100%
Apache Spark - 1000000 - 1000 - B.I.J.T.T (sec)	1.87	1.92
Normalized	100%	97.4%
Apache Spark - 1000000 - 2000 - S.5.B.T (sec)	5.044554868	5.05
Normalized	100%	99.89%
Apache Spark - 1000000 - 2000 - C.P.B (sec)	164.413906014	164.265393372
Normalized	99.91%	100%
Apache Spark - 1000000 - 2000 - C.P.B.U.D (sec)	9.167490585	9.18
Normalized	100%	99.86%
Apache Spark - 1000000 - 2000 - Group By Test Time (sec)	6.47	6.37
Normalized	98.45%	100%
Apache Spark - 1000000 - 2000 - R.T.T (sec)	2.87	2.81
Normalized	97.91%	100%
Apache Spark - 1000000 - 2000 - I.J.T.T (sec)	3.14	3.18
Normalized	100%	98.74%
Apache Spark - 1000000 - 2000 - B.I.J.T.T (sec)	2.72	2.64
Normalized	97.06%	100%
Apache Spark - 10000000 - 100 - S.5.B.T (sec)	14.678975515	14.707623302
Normalized	100%	99.81%
Apache Spark - 10000000 - 100 - C.P.B (sec)	166.790688586	166.826060322
Normalized	100%	99.98%
Apache Spark - 10000000 - 100 - C.P.B.U.D (sec)	9.18	9.22
Normalized	100%	99.57%
Apache Spark - 10000000 - 100 - Group By Test Time (sec)	10.769008925	10.31
Normalized	95.74%	100%
Apache Spark - 10000000 - 100 - R.T.T (sec)	9.07	9.39
Normalized	100%	96.59%
Apache Spark - 10000000 - 100 - I.J.T.T (sec)	11.012688546	12.35
Normalized	100%	89.17%
Apache Spark - 10000000 - 100 - B.I.J.T.T (sec)	11.221832964	11.35
Normalized	100%	98.87%
Apache Spark - 10000000 - 500 - S.5.B.T (sec)	14.082204131	13.75
Normalized	97.64%	100%
Apache Spark - 10000000 - 500 - C.P.B (sec)	164.414531743	164.420254704
Normalized	100%	100%
Apache Spark - 10000000 - 500 - C.P.B.U.D (sec)	9.31	9.28
Normalized	99.68%	100%
Apache Spark - 10000000 - 500 - Group By Test Time (sec)	8.75	9.19
Normalized	100%	95.21%
Apache Spark - 10000000 - 500 - R.T.T (sec)	8.83	9.12
Normalized	100%	96.82%
Apache Spark - 10000000 - 500 - I.J.T.T (sec)	10.221836731	11.40
Normalized	100%	89.67%

xeon aug

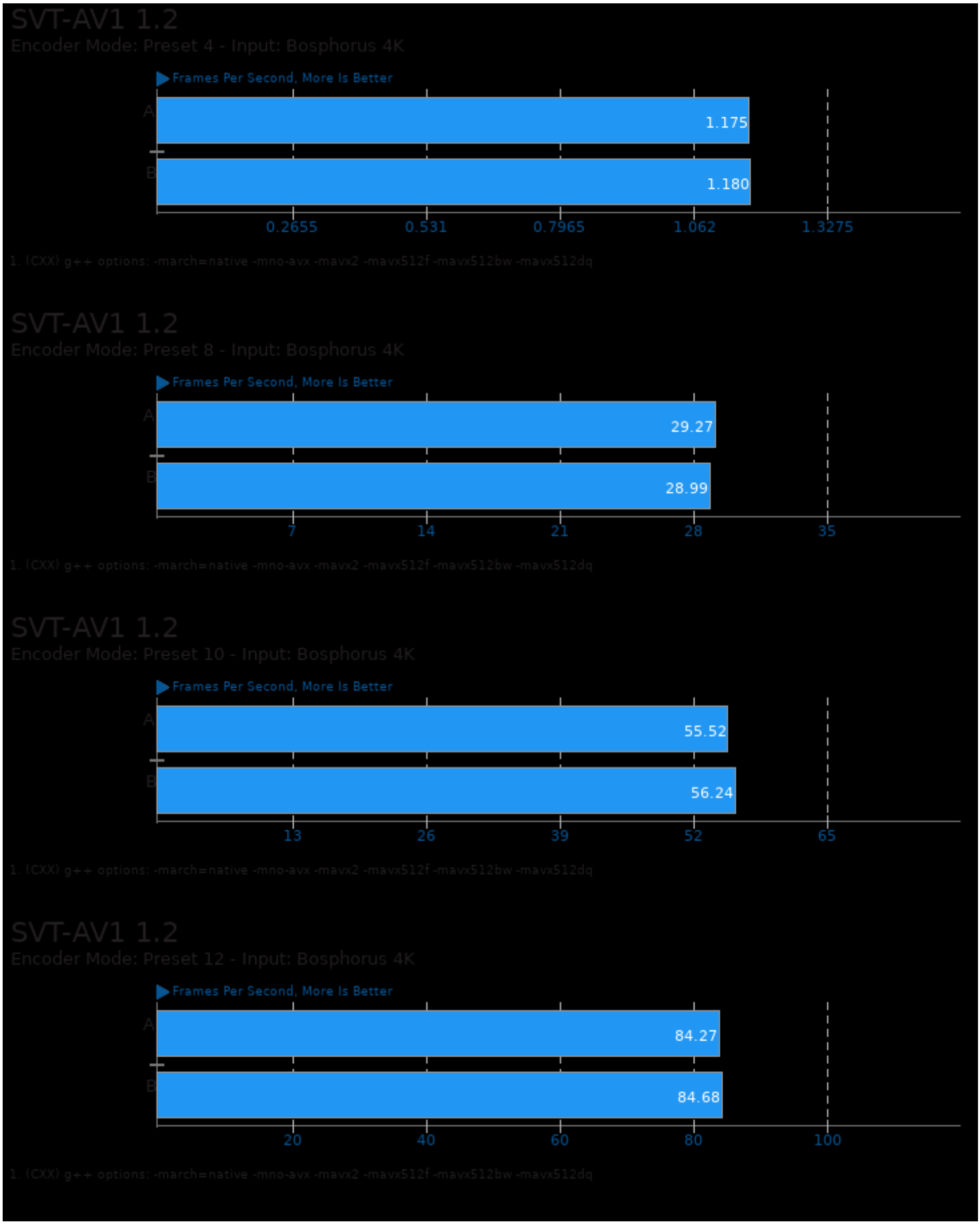
Apache Spark - 10000000 - 500 - B.I.J.T.T (sec)	9.93	10.01
Normalized	100%	99.2%
Apache Spark - 20000000 - 100 - S.5.B.T (sec)	25.560712143	26.748172099
Normalized	100%	95.56%
Apache Spark - 20000000 - 100 - C.P.B (sec)	164.542150821	165.104109012
Normalized	100%	99.66%
Apache Spark - 20000000 - 100 - C.P.B.U.D (sec)	9.26	9.17
Normalized	99.03%	100%
Apache Spark - 20000000 - 100 - Group By Test Time (sec)	14.10892393	14.31
Normalized	100%	98.59%
Apache Spark - 20000000 - 100 - R.T.T (sec)	17.737447663	17.63
Normalized	99.39%	100%
Apache Spark - 20000000 - 100 - I.J.T.T (sec)	21.621813858	22.34
Normalized	100%	96.79%
Apache Spark - 20000000 - 100 - B.I.J.T.T (sec)	22.781539935	21.774210537
Normalized	95.58%	100%
Apache Spark - 20000000 - 500 - S.5.B.T (sec)	22.896273858	24.25
Normalized	100%	94.42%
Apache Spark - 20000000 - 500 - C.P.B (sec)	165.433396471	164.554926918
Normalized	99.47%	100%
Apache Spark - 20000000 - 500 - C.P.B.U.D (sec)	9.134482679	9.22
Normalized	100%	99.07%
Apache Spark - 20000000 - 500 - Group By Test Time (sec)	12.217439608	12.331280532
Normalized	100%	99.08%
Apache Spark - 20000000 - 500 - R.T.T (sec)	16.3865634	16.695599331
Normalized	100%	98.15%
Apache Spark - 20000000 - 500 - I.J.T.T (sec)	19.625980401	19.75
Normalized	100%	99.37%
Apache Spark - 20000000 - 500 - B.I.J.T.T (sec)	18.84989122	19.854132146
Normalized	100%	94.94%
Apache Spark - 40000000 - 100 - S.5.B.T (sec)	47.38	49.67
Normalized	100%	95.39%
Apache Spark - 40000000 - 100 - C.P.B (sec)	166.121431085	166.546537865
Normalized	100%	99.74%
Apache Spark - 40000000 - 100 - C.P.B.U.D (sec)	9.19	9.14
Normalized	99.46%	100%
Apache Spark - 40000000 - 100 - Group By Test Time (sec)	33.53	33.73
Normalized	100%	99.41%
Apache Spark - 40000000 - 100 - R.T.T (sec)	34.875053758	34.38
Normalized	98.58%	100%
Apache Spark - 40000000 - 100 - I.J.T.T (sec)	42.599919022	42.301441583
Normalized	99.3%	100%
Apache Spark - 40000000 - 100 - B.I.J.T.T (sec)	43.376503505	43.931885115
Normalized	100%	98.74%
Apache Spark - 40000000 - 500 - S.5.B.T (sec)	47.70	49.132093687
Normalized	100%	97.09%
Apache Spark - 40000000 - 500 - C.P.B (sec)	167.070615901	167.287774211
Normalized	100%	99.87%
Apache Spark - 40000000 - 500 - C.P.B.U.D (sec)	9.25	9.14
Normalized	98.81%	100%

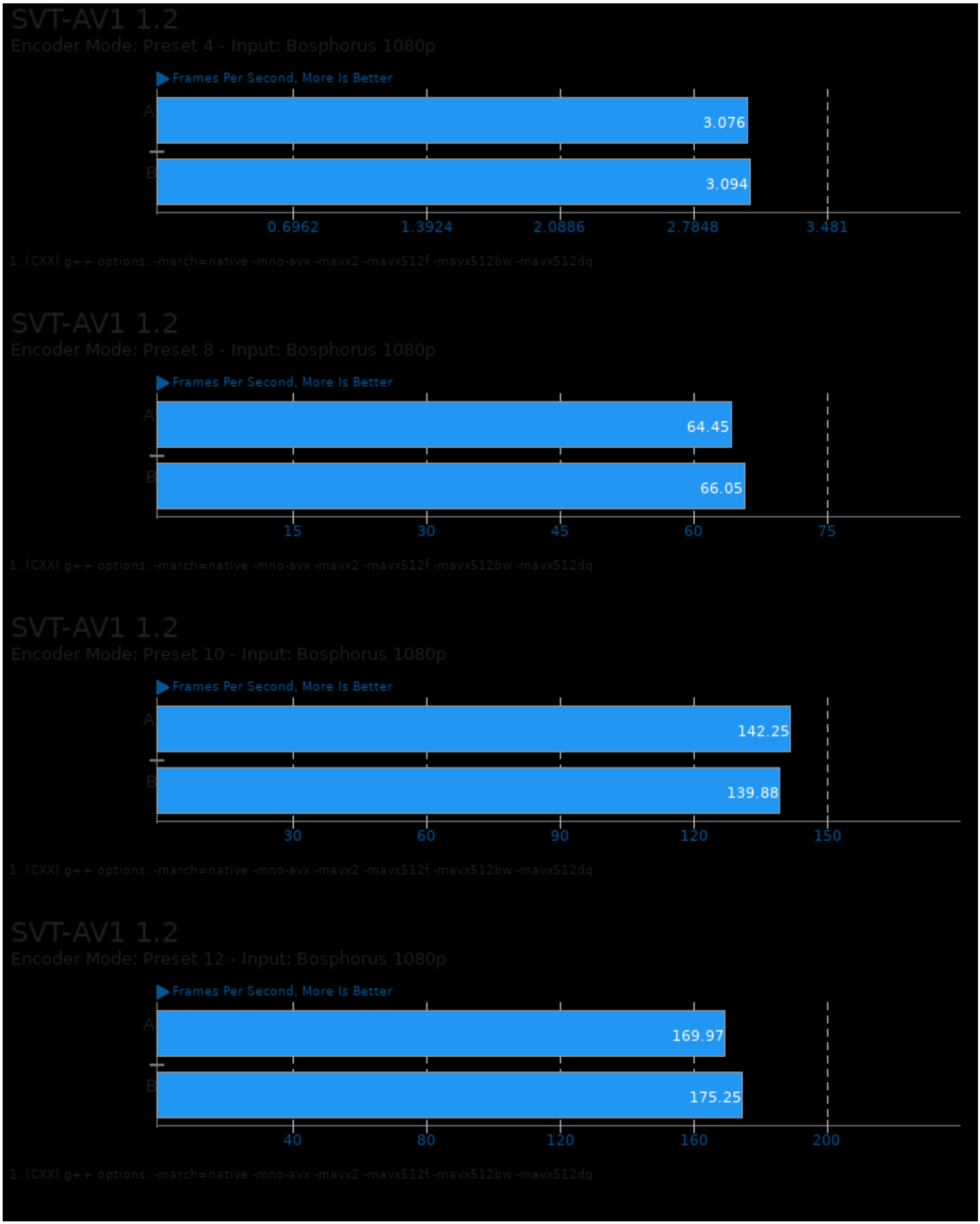
xeon aug

Apache Spark - 40000000 - 500 - Group By Test Time (sec)	32.064820267	32.64
Normalized	100%	98.24%
Apache Spark - 40000000 - 500 - R.T.T (sec)	32.233288679	33.67
Normalized	100%	95.73%
Apache Spark - 40000000 - 500 - I.J.T.T (sec)	39.91162144	41.458290432
Normalized	100%	96.27%
Apache Spark - 40000000 - 500 - B.I.J.T.T (sec)	41.67866261	41.50
Normalized	99.57%	100%
Apache Spark - 10000000 - 1000 - S.5.B.T (sec)	16.00	14.78
Normalized	92.38%	100%
Apache Spark - 10000000 - 1000 - C.P.B (sec)	164.565807648	165.171764247
Normalized	100%	99.63%
Apache Spark - 10000000 - 1000 - C.P.B.U.D (sec)	9.23	9.01
Normalized	97.62%	100%
Apache Spark - 10000000 - 1000 - Group By Test Time (sec)	9.77	9.86
Normalized	100%	99.09%
Apache Spark - 10000000 - 1000 - R.T.T (sec)	9.26	9.48
Normalized	100%	97.68%
Apache Spark - 10000000 - 1000 - I.J.T.T (sec)	11.346173356	11.21
Normalized	98.8%	100%
Apache Spark - 10000000 - 1000 - B.I.J.T.T (sec)	11.06	10.818551561
Normalized	97.82%	100%
Apache Spark - 10000000 - 2000 - S.5.B.T (sec)	14.809086685	15.040579433
Normalized	100%	98.46%
Apache Spark - 10000000 - 2000 - C.P.B (sec)	166.533659096	166.294134862
Normalized	99.86%	100%
Apache Spark - 10000000 - 2000 - C.P.B.U.D (sec)	9.22	9.16
Normalized	99.35%	100%
Apache Spark - 10000000 - 2000 - Group By Test Time (sec)	10.13	10.1794281
Normalized	100%	99.51%
Apache Spark - 10000000 - 2000 - R.T.T (sec)	8.96	8.77
Normalized	97.88%	100%
Apache Spark - 10000000 - 2000 - I.J.T.T (sec)	12.396934416	11.537238634
Normalized	93.07%	100%
Apache Spark - 10000000 - 2000 - B.I.J.T.T (sec)	12.088612913	11.500112909
Normalized	95.13%	100%
Apache Spark - 20000000 - 1000 - S.5.B.T (sec)	24.079289745	24.003832093
Normalized	99.69%	100%
Apache Spark - 20000000 - 1000 - C.P.B (sec)	165.230955243	163.874027089
Normalized	99.18%	100%
Apache Spark - 20000000 - 1000 - C.P.B.U.D (sec)	9.14	9.222602799
Normalized	100%	99.1%
Apache Spark - 20000000 - 1000 - Group By Test Time (sec)	13.440615328	13.66
Normalized	100%	98.39%
Apache Spark - 20000000 - 1000 - R.T.T (sec)	16.387663543	16.430581739
Normalized	100%	99.74%
Apache Spark - 20000000 - 1000 - I.J.T.T (sec)	20.754253155	20.826974976
Normalized	100%	99.65%

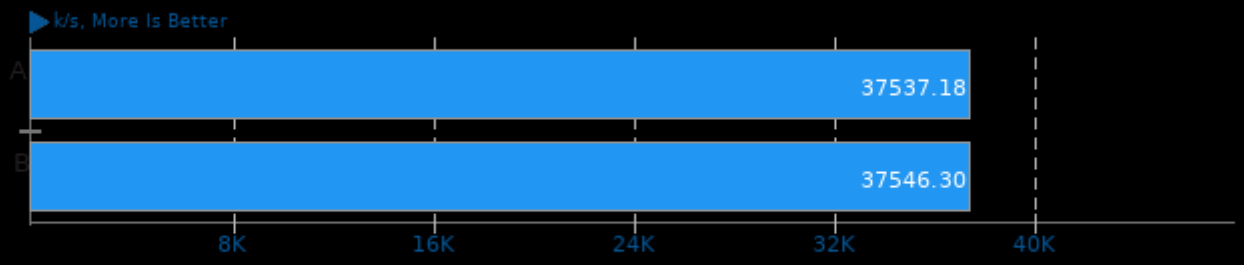
xeon aug

Apache Spark - 20000000 - 1000 - B.I.J.T.T (sec)	20.877051043	20.878588873
Normalized	100%	99.99%
Apache Spark - 20000000 - 2000 - S.5.B.T (sec)	26.728834514	23.92
Normalized	89.49%	100%
Apache Spark - 20000000 - 2000 - C.P.B (sec)	164.384304111	164.549503488
Normalized	100%	99.9%
Apache Spark - 20000000 - 2000 - C.P.B.U.D (sec)	9.15	9.14
Normalized	99.89%	100%
Apache Spark - 20000000 - 2000 - Group By Test Time (sec)	13.445282884	13.721277166
Normalized	100%	97.99%
Apache Spark - 20000000 - 2000 - R.T.T (sec)	16.210030495	17.11
Normalized	100%	94.74%
Apache Spark - 20000000 - 2000 - I.J.T.T (sec)	22.683206597	22.00
Normalized	96.99%	100%
Apache Spark - 20000000 - 2000 - B.I.J.T.T (sec)	20.022032374	20.162357239
Normalized	100%	99.3%
Apache Spark - 40000000 - 1000 - S.5.B.T (sec)	45.38	42.31
Normalized	93.23%	100%
Apache Spark - 40000000 - 1000 - C.P.B (sec)	164.770495237	165.07990747
Normalized	100%	99.81%
Apache Spark - 40000000 - 1000 - C.P.B.U.D (sec)	9.22	9.18
Normalized	99.57%	100%
Apache Spark - 40000000 - 1000 - Group By Test Time (sec)	30.135582514	29.969515023
Normalized	99.45%	100%
Apache Spark - 40000000 - 1000 - R.T.T (sec)	32.835432739	31.715387696
Normalized	96.59%	100%
Apache Spark - 40000000 - 1000 - I.J.T.T (sec)	39.194345992	39.64
Normalized	100%	98.88%
Apache Spark - 40000000 - 1000 - B.I.J.T.T (sec)	38.638406875	38.02
Normalized	98.4%	100%
Apache Spark - 40000000 - 2000 - S.5.B.T (sec)	45.642288193	43.15
Normalized	94.54%	100%
Apache Spark - 40000000 - 2000 - C.P.B (sec)	164.630045609	164.706474868
Normalized	100%	99.95%
Apache Spark - 40000000 - 2000 - C.P.B.U.D (sec)	9.30	9.20
Normalized	98.92%	100%
Apache Spark - 40000000 - 2000 - Group By Test Time (sec)	27.78772125	26.82
Normalized	96.52%	100%
Apache Spark - 40000000 - 2000 - R.T.T (sec)	32.168226975	31.96
Normalized	99.35%	100%
Apache Spark - 40000000 - 2000 - I.J.T.T (sec)	42.16	41.037694659
Normalized	97.34%	100%
Apache Spark - 40000000 - 2000 - B.I.J.T.T (sec)	37.784425464	37.984000199
Normalized	100%	99.47%


SVT-AV1 1.2
Encoder Mode: Preset 4 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
1.175
B
1.180
0.2655
0.531
0.7965
1.062
1.3275
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
29.27
B
28.99
7
14
21
28
35
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 10 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
55.52
B
56.24
13
26
39
52
65
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 12 - Input: Bosphorus 4K
Frames Per Second, More Is Better
A
84.27
B
84.68
20
40
60
80
100
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq


SVT-AV1 1.2
Encoder Mode: Preset 4 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
3.076
B
3.094
0.6962
1.3924
2.0886
2.7848
3.481
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 8 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
64.45
B
66.05
15
30
45
60
75
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 10 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
142.25
B
139.88
30
60
90
120
150
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq
SVT-AV1 1.2
Encoder Mode: Preset 12 - Input: Bosphorus 1080p
Frames Per Second, More Is Better
A
169.97
B
175.25
40
80
120
160
200
1. (CXX) g++ options: -march=native -mno-avx -mavx2 -mavx512f -mavx512bw -mavx512dq

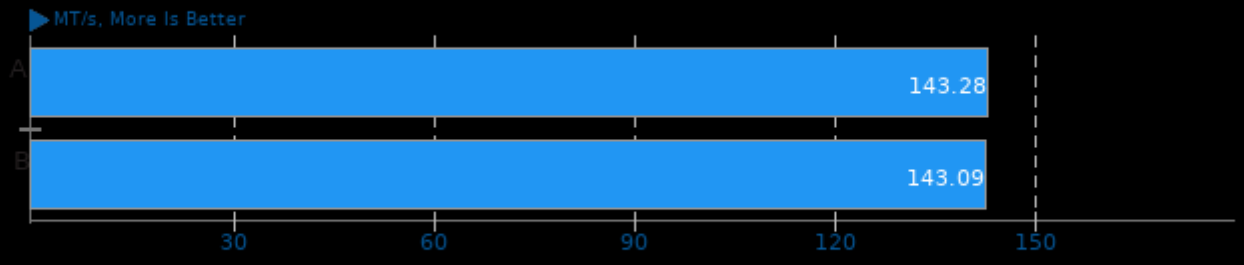
Aircrack-ng 1.7



1. (CXX) g++ options: -std=gnu++17 -O3 -fvisibility=hidden -fcommon -rdynamic -lnl-3 -lnl-genl-3 -lpcre -lpthread -lz -lssl -lcrypto -lhwloc -ldl -lm -pthre

ASTC Encoder 4.0

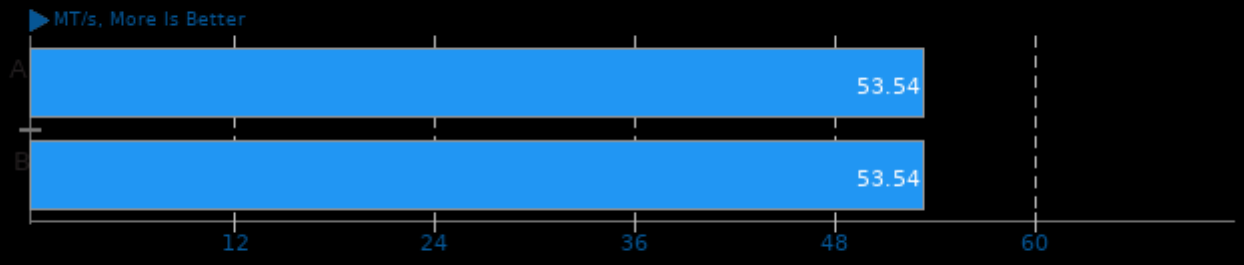
Preset: Fast



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

ASTC Encoder 4.0

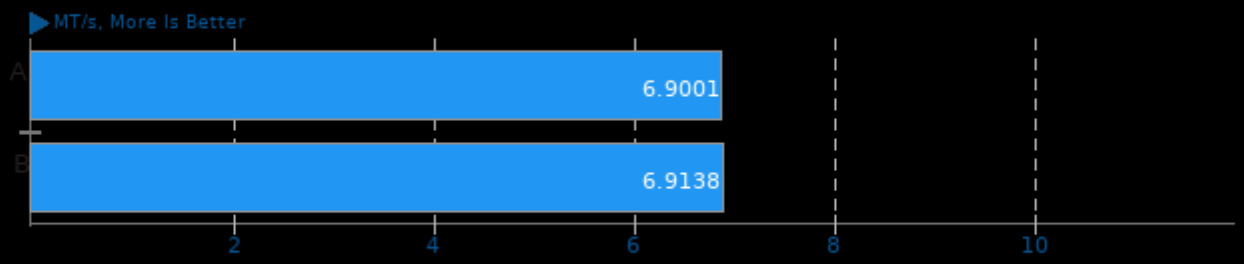
Preset: Medium



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

ASTC Encoder 4.0

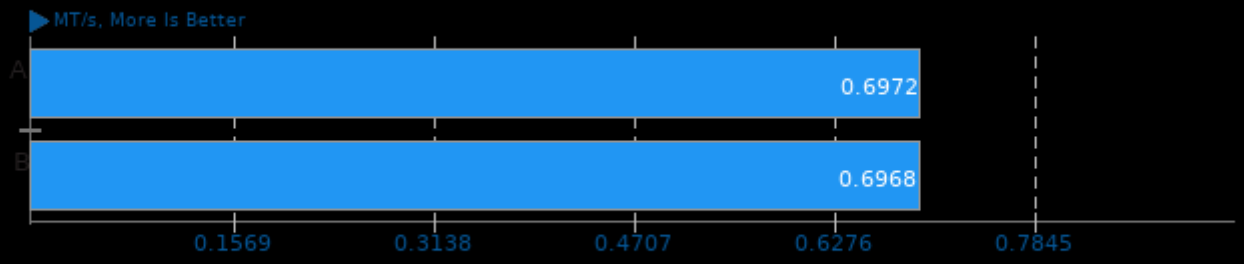
Preset: Thorough



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

ASTC Encoder 4.0

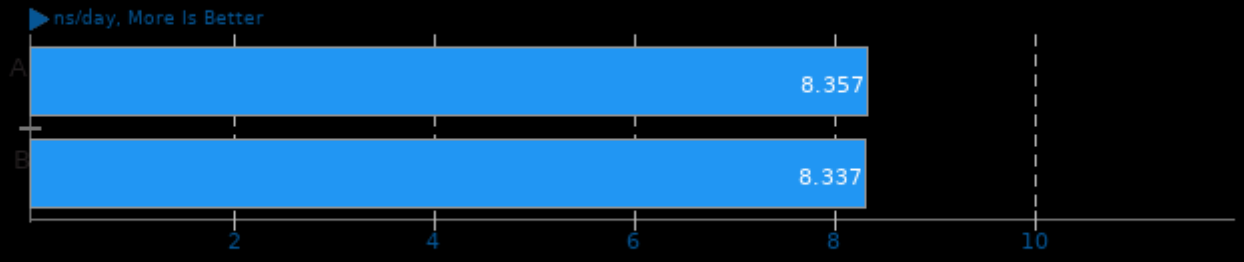
Preset: Exhaustive



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

LAMMPS Molecular Dynamics Simulator 23Jun2022

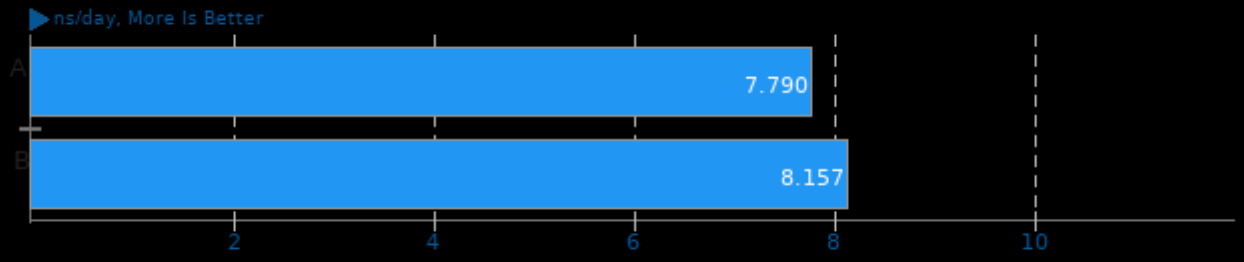
Model: 20k Atoms



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

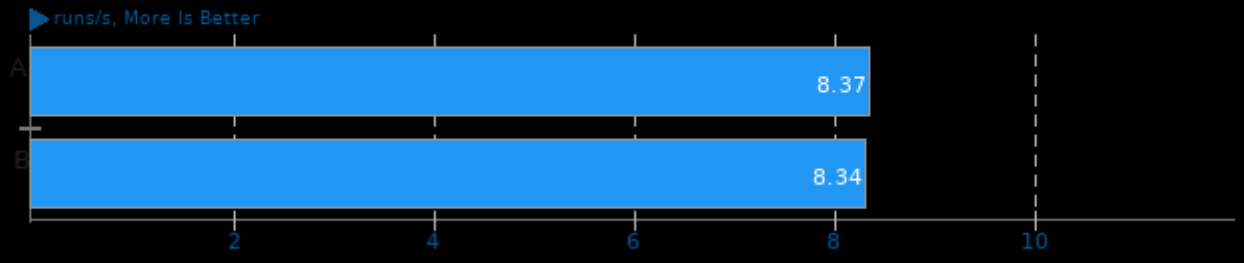
LAMMPS Molecular Dynamics Simulator 23Jun2022

Model: Rhodopsin Protein



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

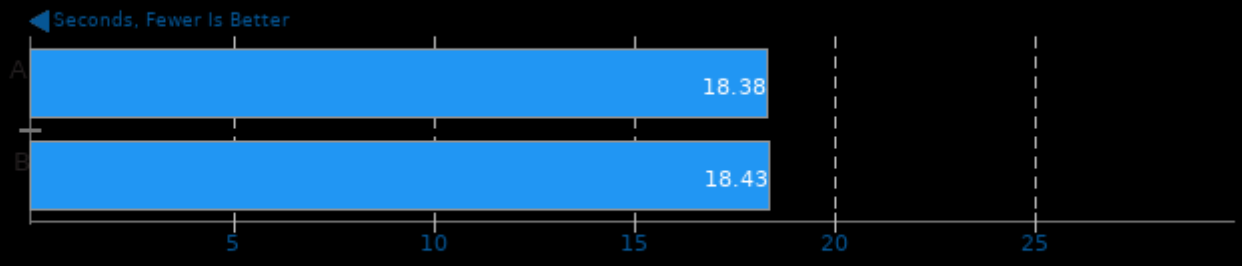
Node.js V8 Web Tooling Benchmark



xeon aug

Primesieve 8.0

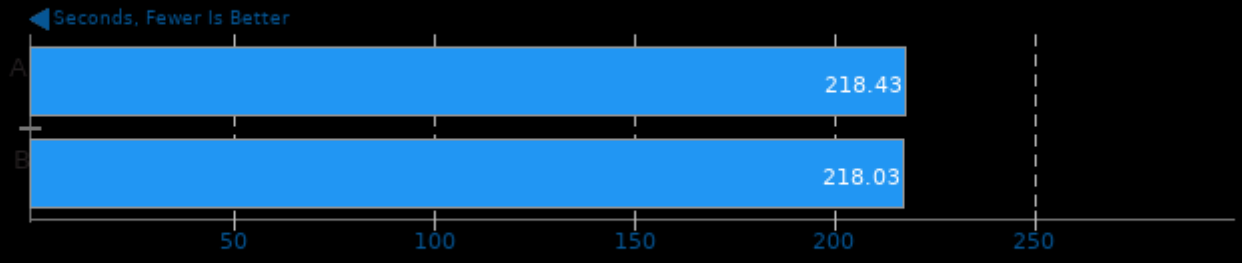
Length: 1e12



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

Primesieve 8.0

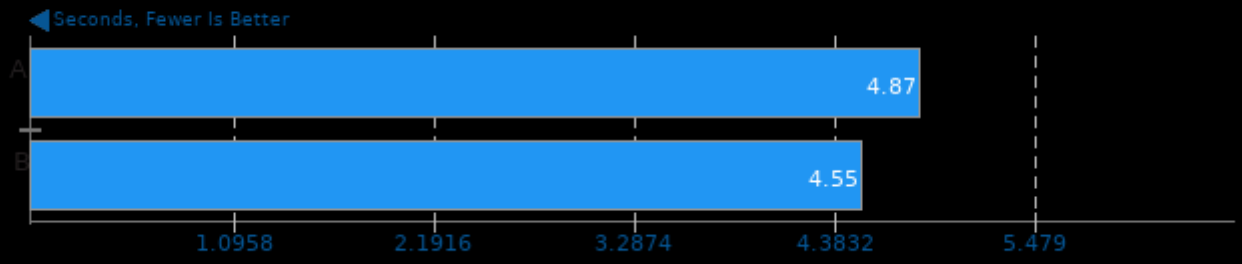
Length: 1e13



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

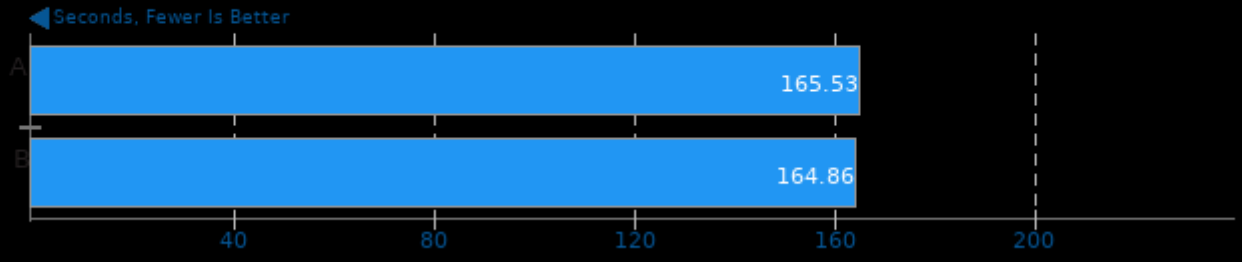
Apache Spark 3.3

Row Count: 1000000 - Partitions: 100 - SHA-512 Benchmark Time

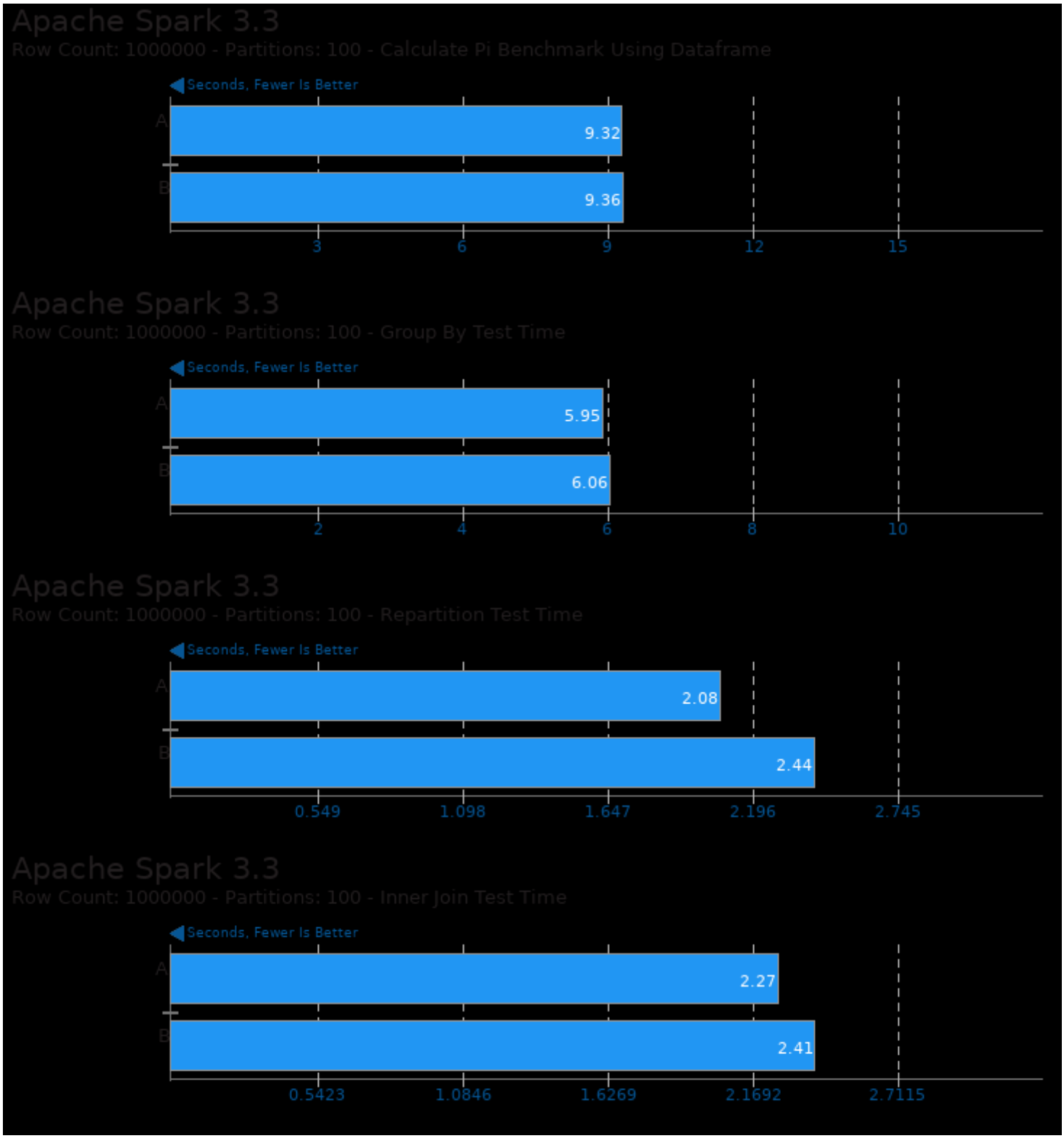


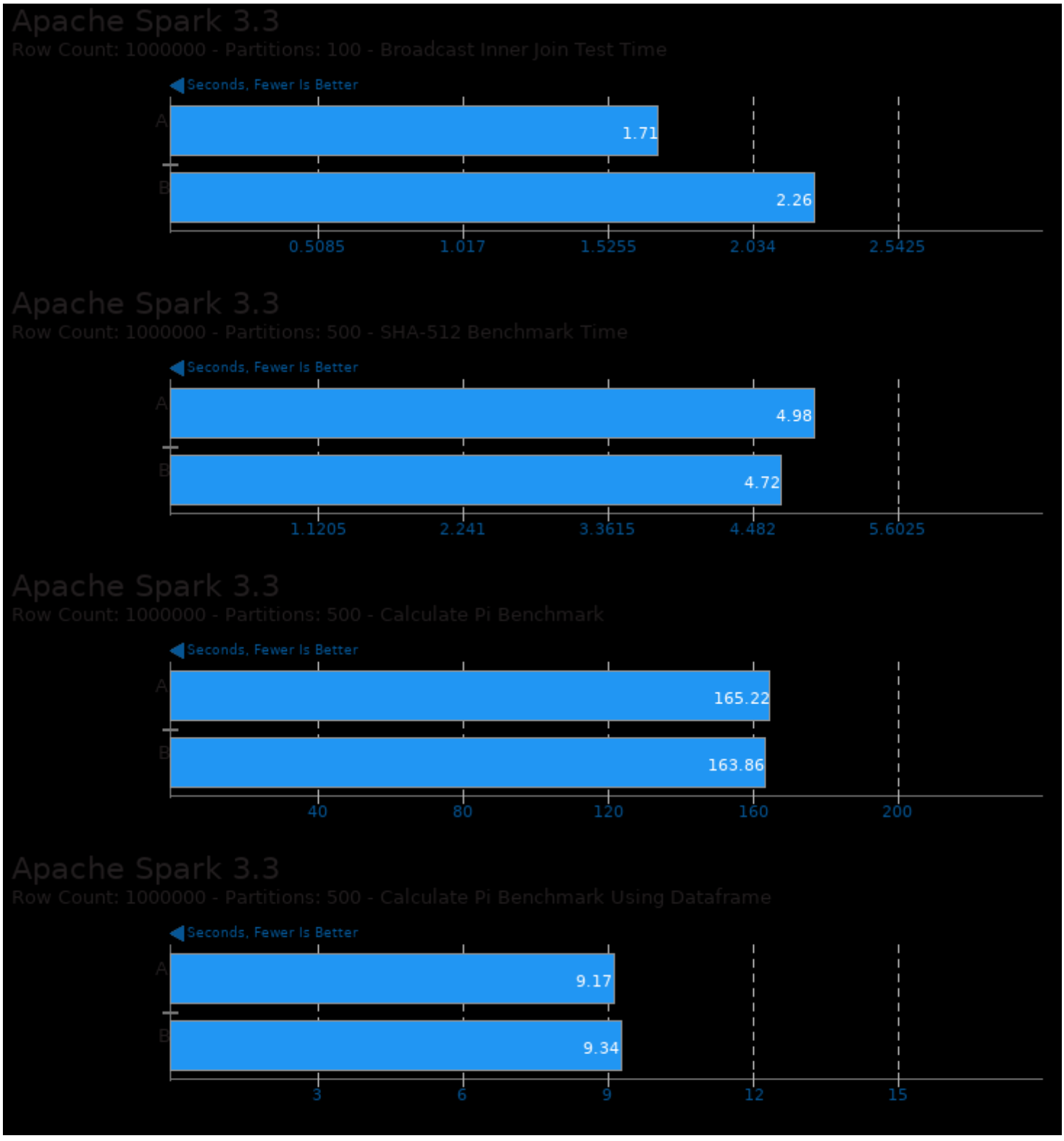
Apache Spark 3.3

Row Count: 1000000 - Partitions: 100 - Calculate Pi Benchmark

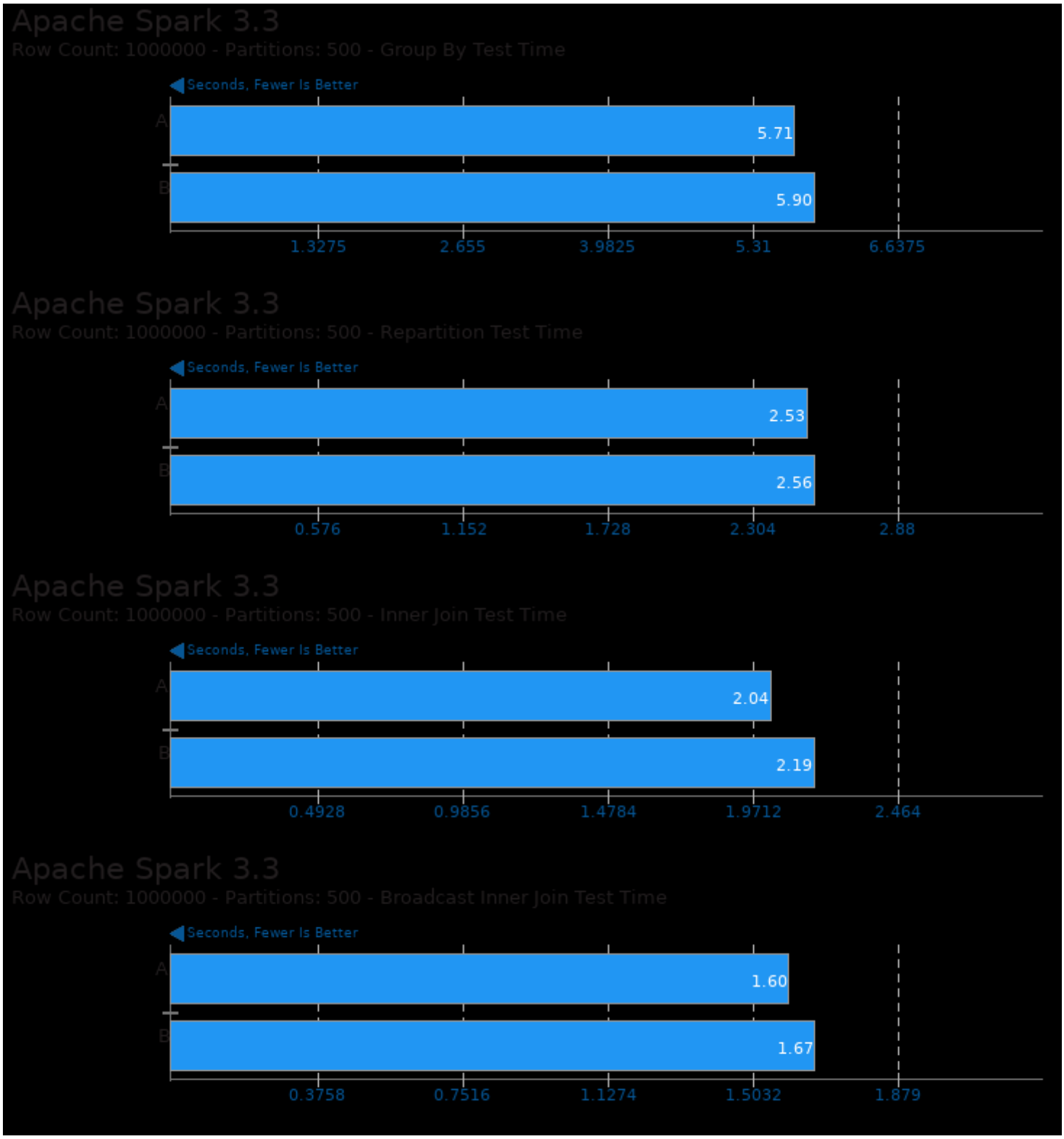


xeon aug

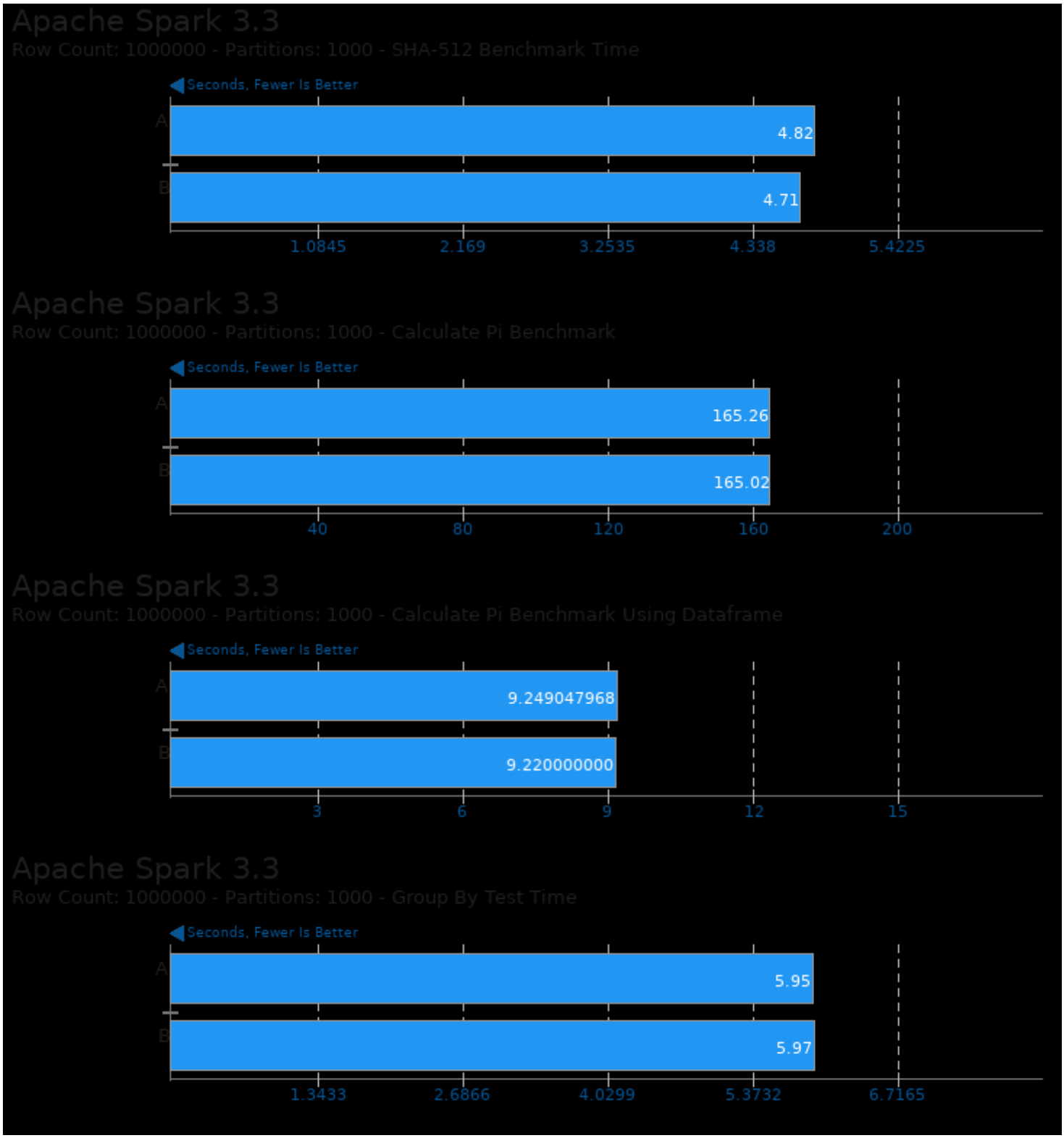

Apache Spark 3.3
Row Count: 1000000 - Partitions: 100 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.32
B
9.36
3
6
9
12
15
Apache Spark 3.3
Row Count: 1000000 - Partitions: 100 - Group By Test Time
Seconds, Fewer Is Better
A
5.95
B
6.06
2
4
6
8
10
Apache Spark 3.3
Row Count: 1000000 - Partitions: 100 - Repartition Test Time
Seconds, Fewer Is Better
A
2.08
B
2.44
0.549
1.098
1.647
2.196
2.745
Apache Spark 3.3
Row Count: 1000000 - Partitions: 100 - Inner Join Test Time
Seconds, Fewer Is Better
A
2.27
B
2.41
0.5423
1.0846
1.6269
2.1692
2.7115


Apache Spark 3.3
Row Count: 1000000 - Partitions: 100 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
1.71
B
2.26
0.5085
1.017
1.5255
2.034
2.5425
Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
4.98
B
4.72
1.1205
2.241
3.3615
4.482
5.6025
Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
165.22
B
163.86
40
80
120
160
200
Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.17
B
9.34
3
6
9
12
15

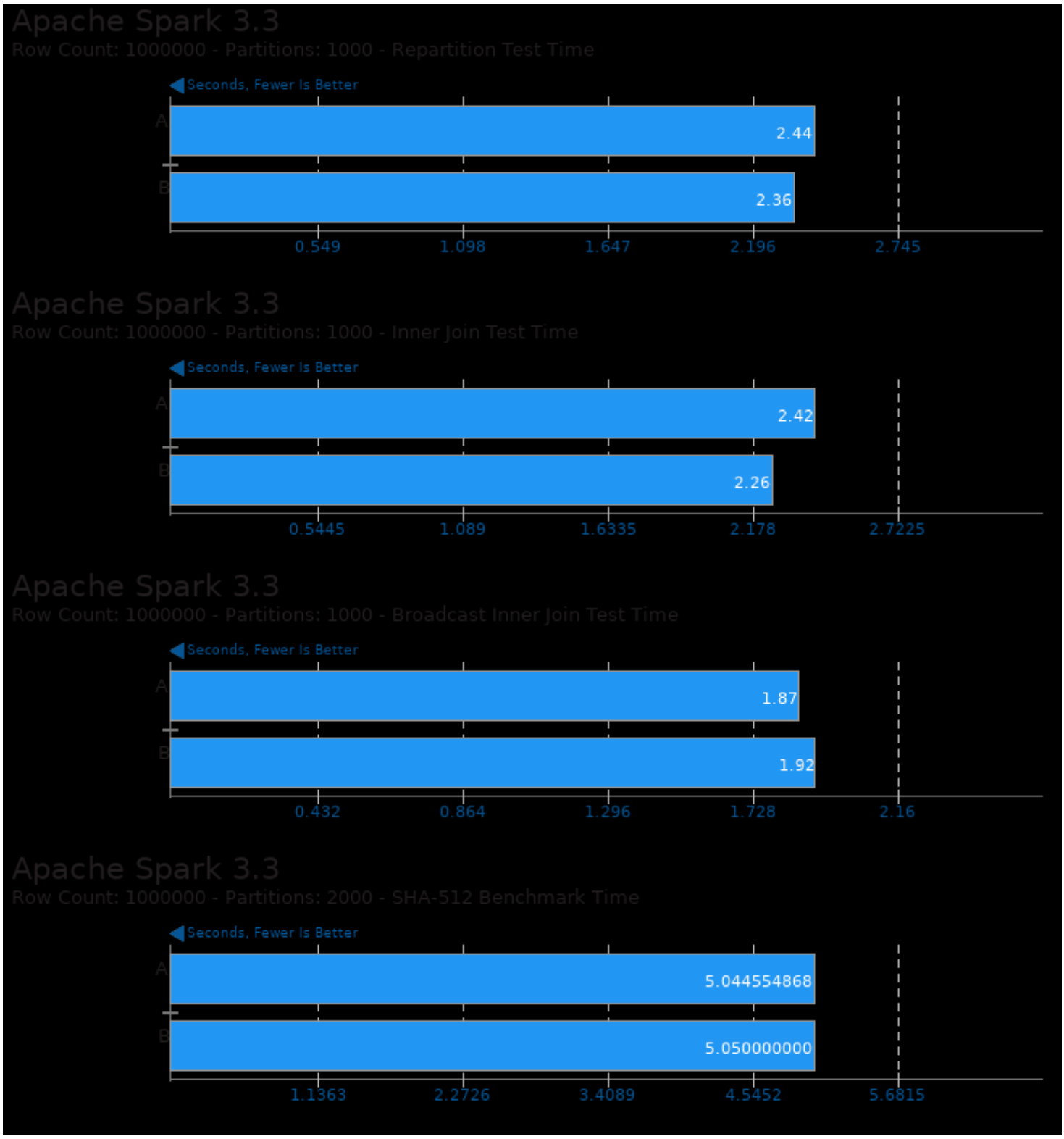
xeon aug


Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - Group By Test Time
Seconds, Fewer Is Better
A
B
5.71
5.90
1.3275
2.655
3.9825
5.31
6.6375
Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - Repartition Test Time
Seconds, Fewer Is Better
A
B
2.53
2.56
0.576
1.152
1.728
2.304
2.88
Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - Inner Join Test Time
Seconds, Fewer Is Better
A
B
2.04
2.19
0.4928
0.9856
1.4784
1.9712
2.464
Apache Spark 3.3
Row Count: 1000000 - Partitions: 500 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
B
1.60
1.67
0.3758
0.7516
1.1274
1.5032
1.879

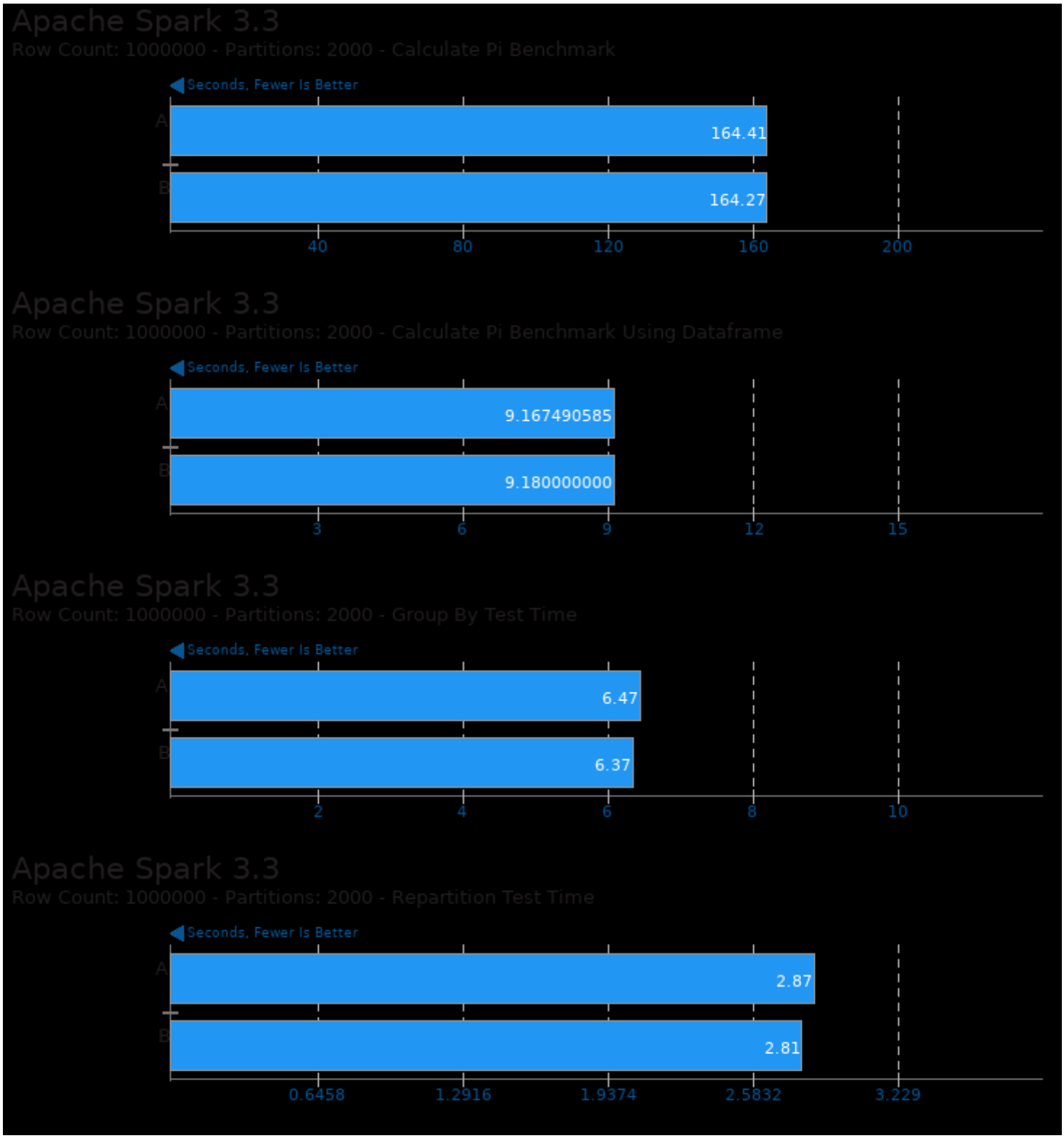
xeon aug

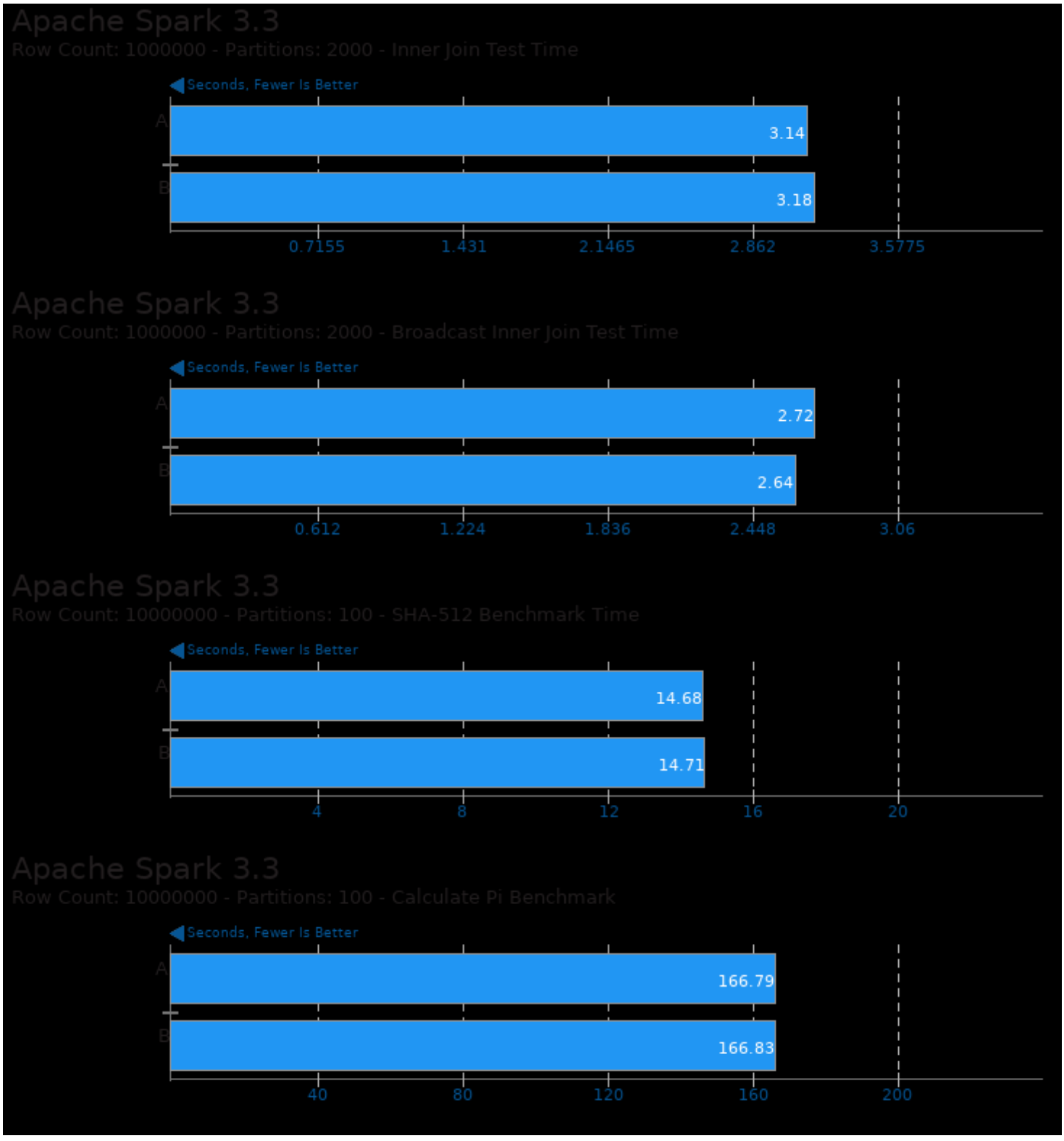

Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
4.82
B
4.71
1.0845
2.169
3.2535
4.338
5.4225
Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
165.26
B
165.02
40
80
120
160
200
Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.249047968
B
9.220000000
3
6
9
12
15
Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - Group By Test Time
Seconds, Fewer Is Better
A
5.95
B
5.97
1.3433
2.6866
4.0299
5.3732
6.7165

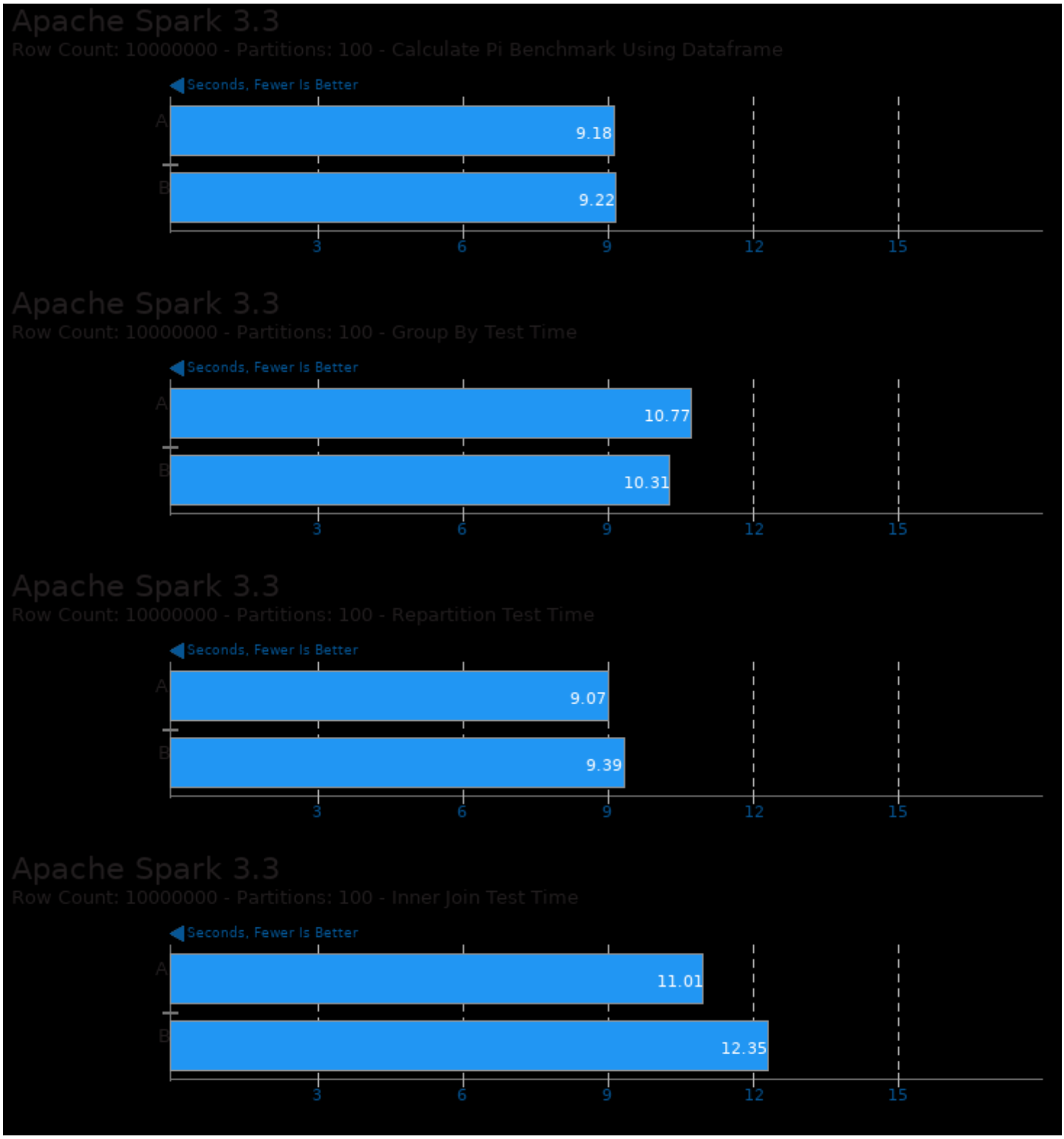
xeon aug

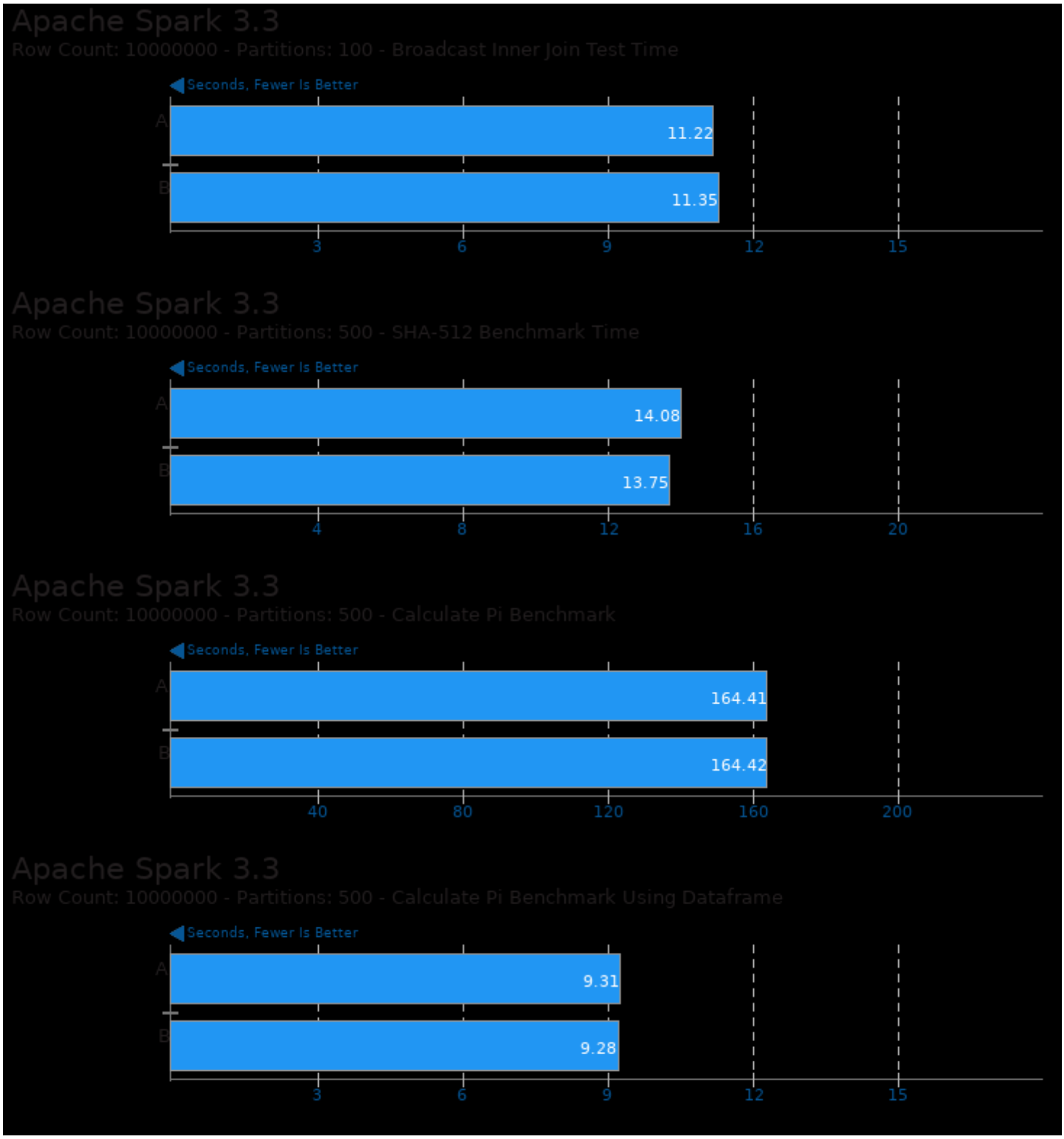

Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - Repartition Test Time
Seconds, Fewer Is Better
A
B
2.44
2.36
0.549
1.098
1.647
2.196
2.745
Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - Inner Join Test Time
Seconds, Fewer Is Better
A
B
2.42
2.26
0.5445
1.089
1.6335
2.178
2.7225
Apache Spark 3.3
Row Count: 1000000 - Partitions: 1000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
B
1.87
1.92
0.432
0.864
1.296
1.728
2.16
Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
B
5.044554868
5.050000000
1.1363
2.2726
3.4089
4.5452
5.6815

xeon aug

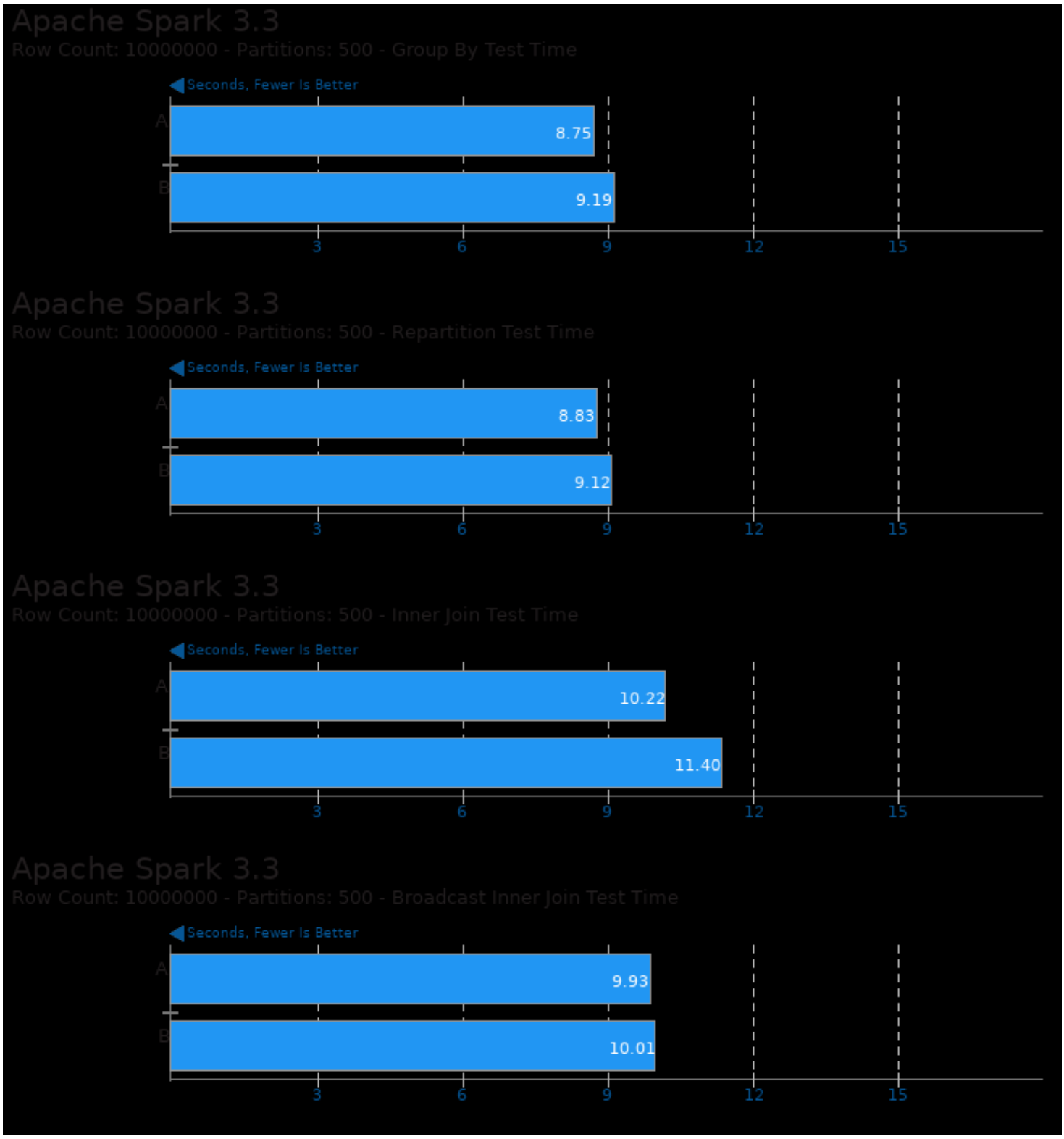

Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.41
B
164.27
40
80
120
160
200
Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.167490585
B
9.180000000
3
6
9
12
15
Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - Group By Test Time
Seconds, Fewer Is Better
A
6.47
B
6.37
2
4
6
8
10
Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - Repartition Test Time
Seconds, Fewer Is Better
A
2.87
B
2.81
0.6458
1.2916
1.9374
2.5832
3.229

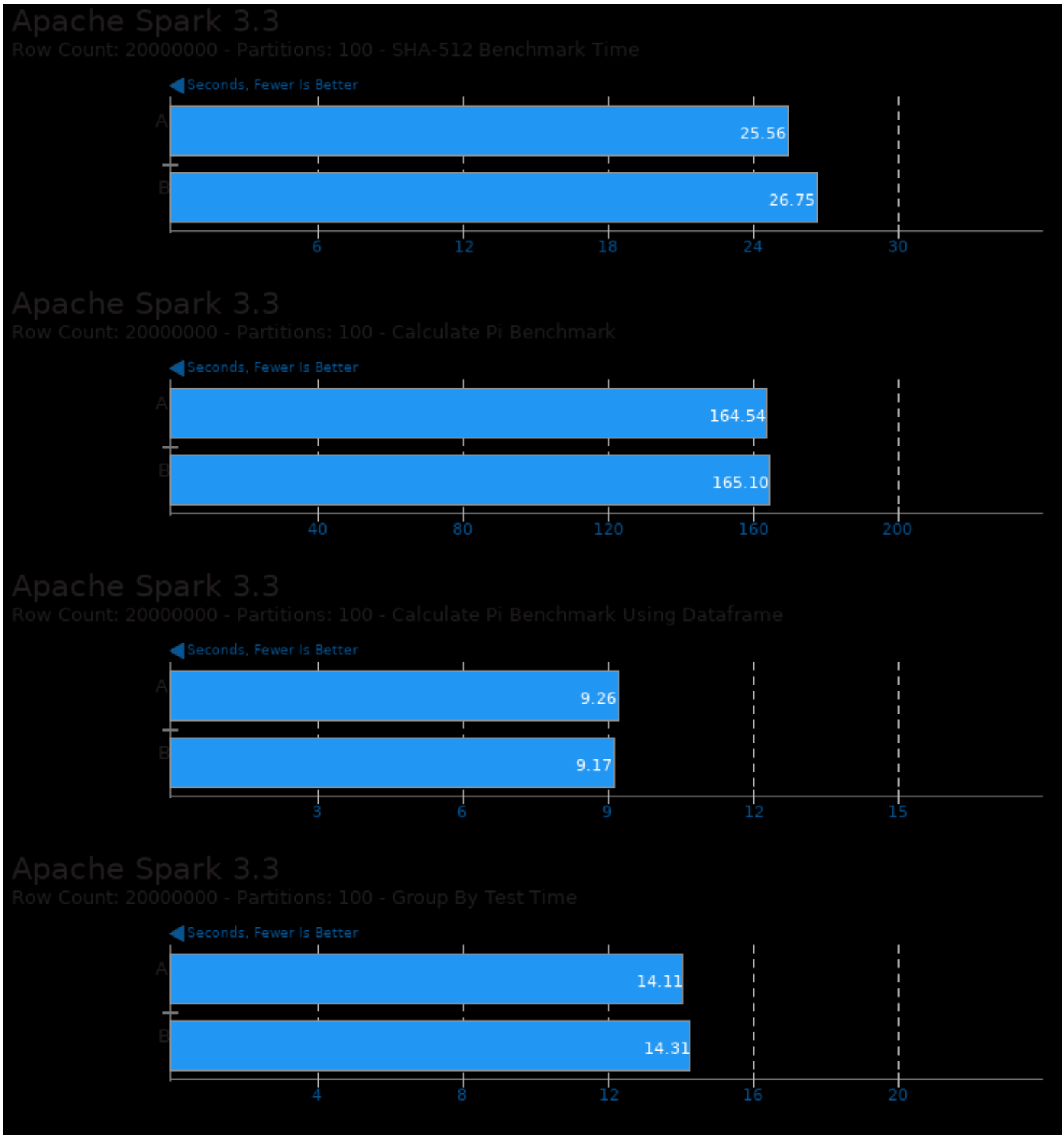

Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - Inner Join Test Time
Seconds, Fewer Is Better
A
3.14
B
3.18
0.7155
1.431
2.1465
2.862
3.5775
Apache Spark 3.3
Row Count: 1000000 - Partitions: 2000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
2.72
B
2.64
0.612
1.224
1.836
2.448
3.06
Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
14.68
B
14.71
4
8
12
16
20
Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
166.79
B
166.83
40
80
120
160
200


Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.18
B
9.22
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - Group By Test Time
Seconds, Fewer Is Better
A
10.77
B
10.31
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - Repartition Test Time
Seconds, Fewer Is Better
A
9.07
B
9.39
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - Inner Join Test Time
Seconds, Fewer Is Better
A
11.01
B
12.35
3
6
9
12
15

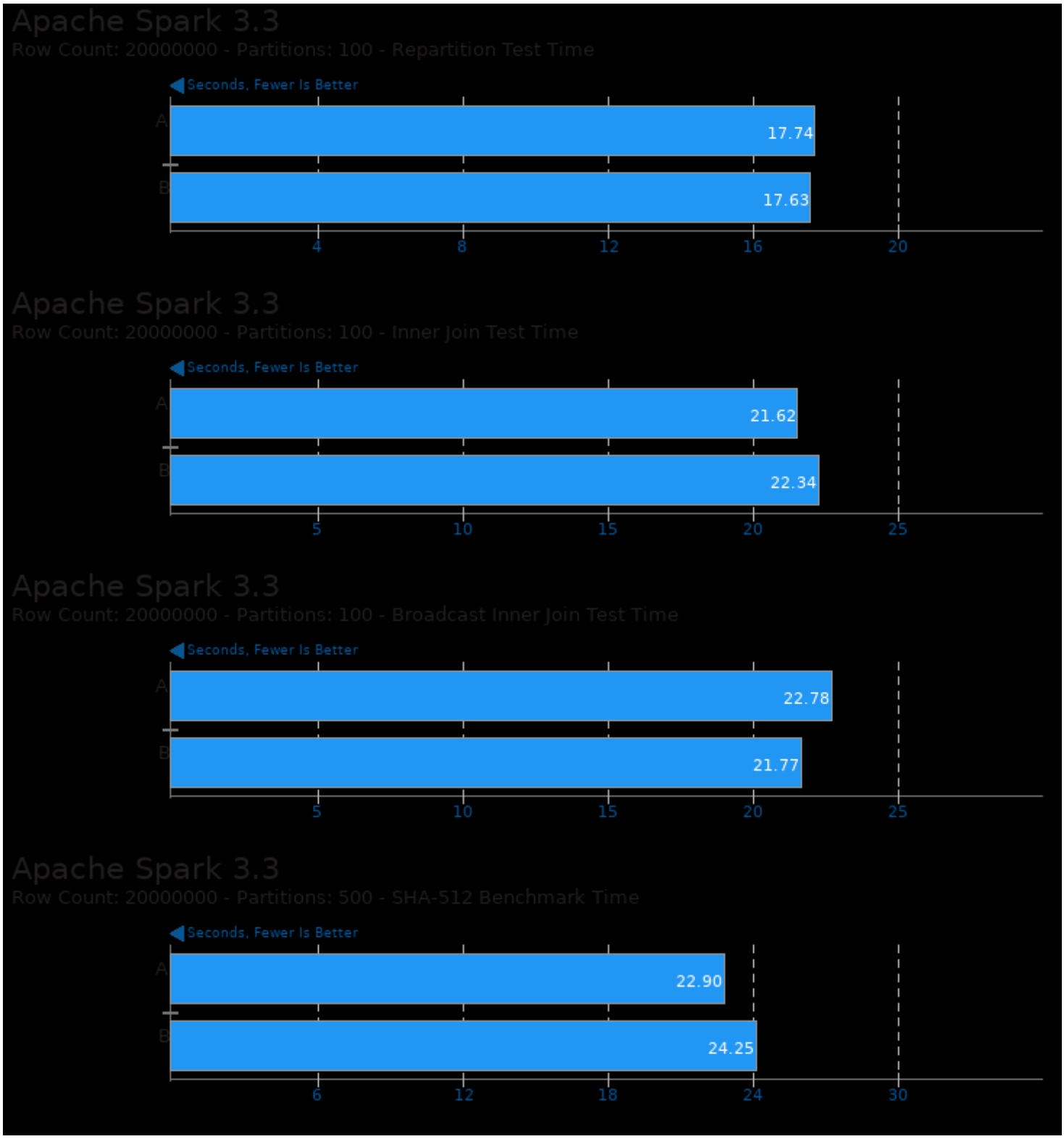

Apache Spark 3.3
Row Count: 10000000 - Partitions: 100 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
11.22
B
11.35
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
14.08
B
13.75
4
8
12
16
20
Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.41
B
164.42
40
80
120
160
200
Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.31
B
9.28
3
6
9
12
15

xeon aug

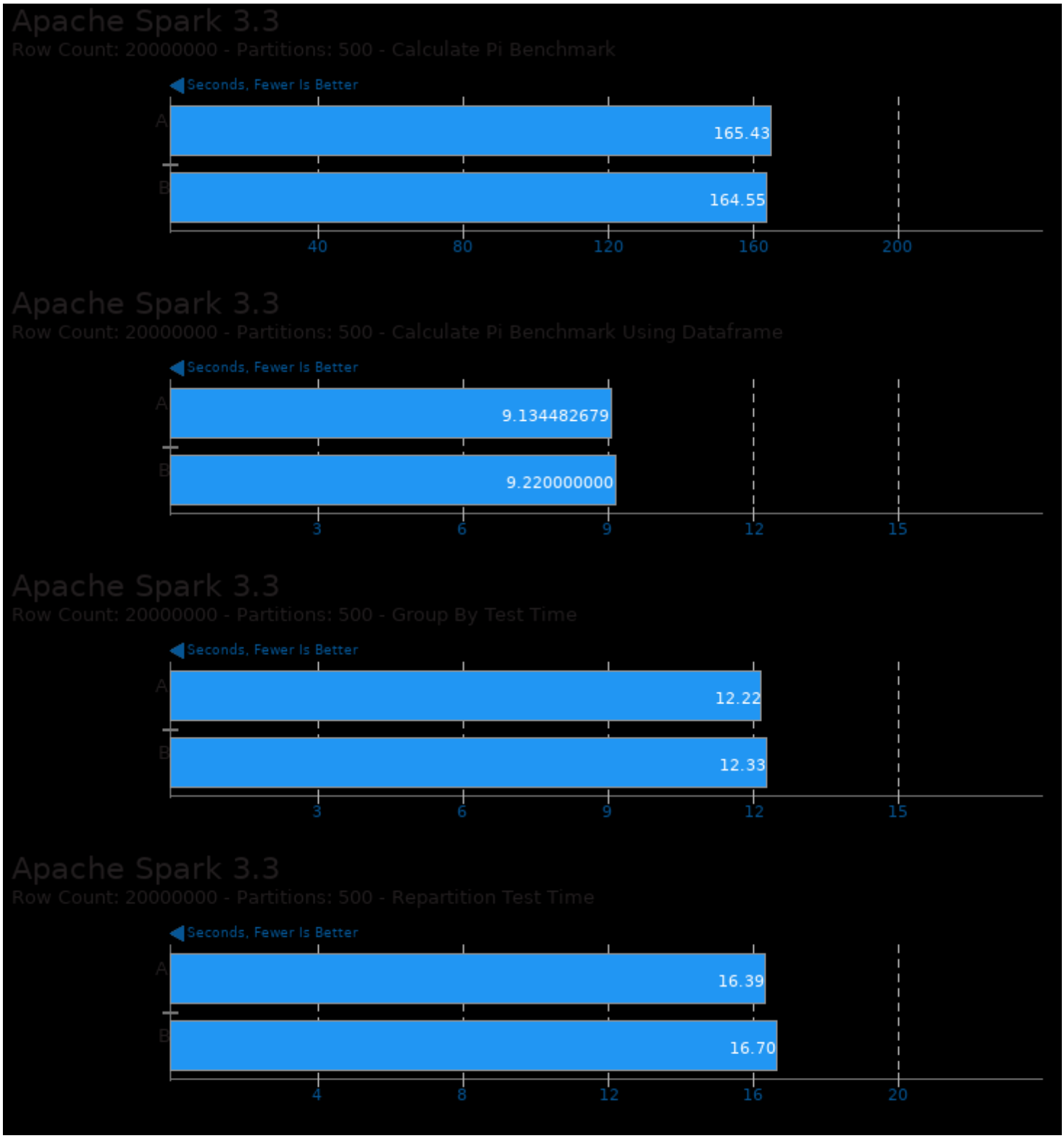

Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - Group By Test Time
Seconds, Fewer Is Better
A
8.75
B
9.19
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - Repartition Test Time
Seconds, Fewer Is Better
A
8.83
B
9.12
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - Inner Join Test Time
Seconds, Fewer Is Better
A
10.22
B
11.40
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 500 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
9.93
B
10.01
3
6
9
12
15

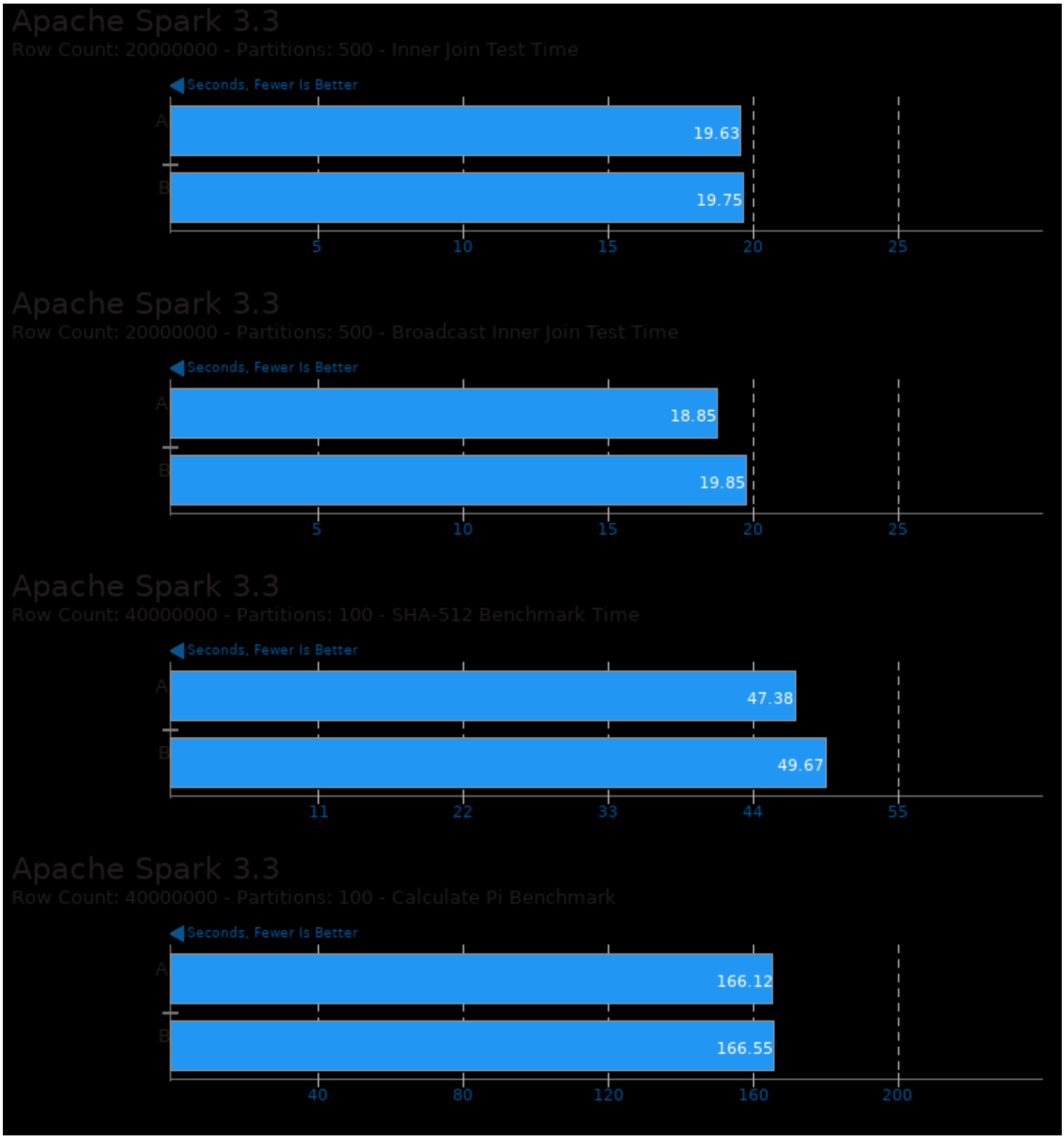

Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
25.56
B
26.75
6
12
18
24
30
Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.54
B
165.10
40
80
120
160
200
Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.26
B
9.17
3
6
9
12
15
Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - Group By Test Time
Seconds, Fewer Is Better
A
14.11
B
14.31
4
8
12
16
20

xeon aug

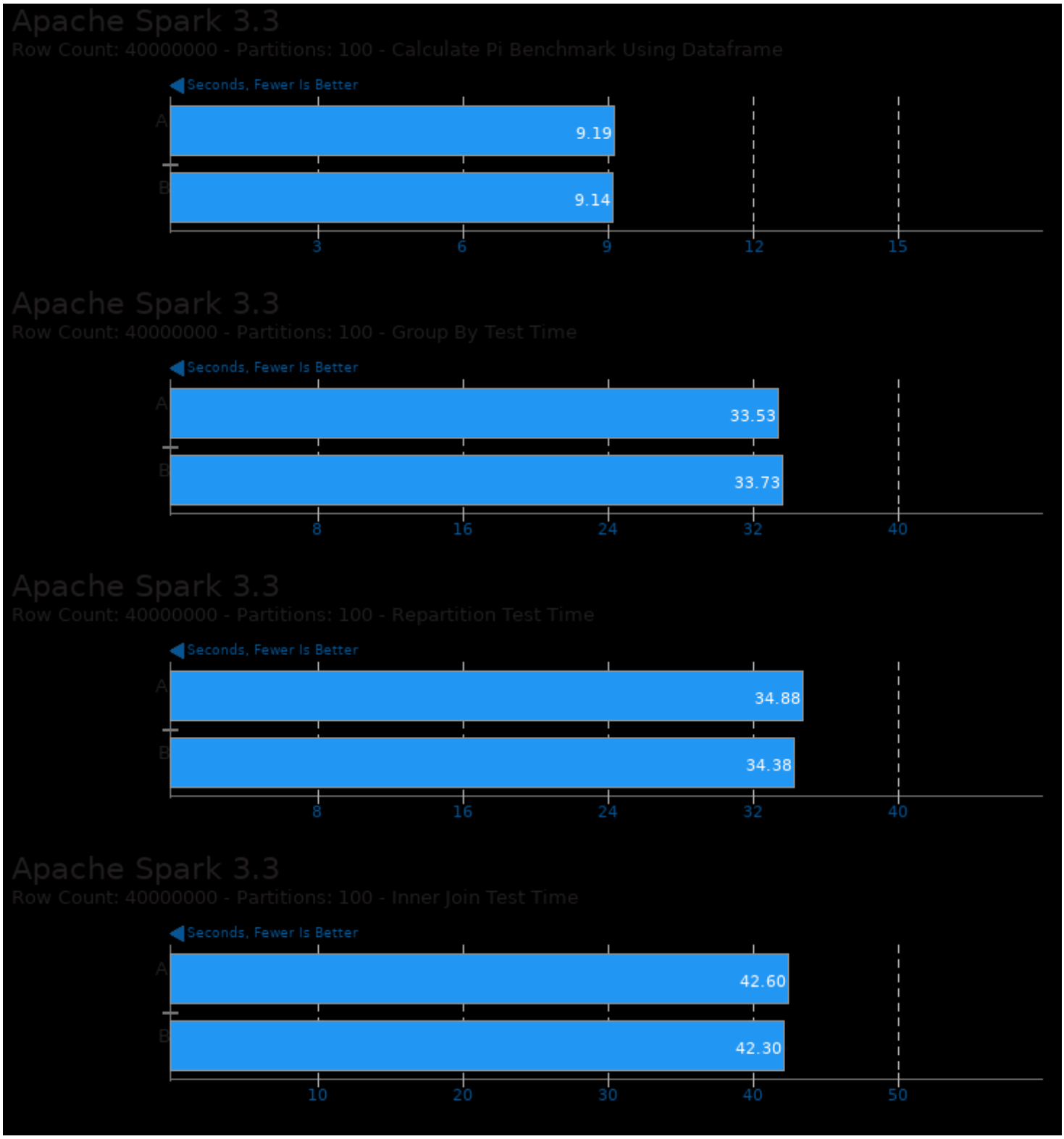

Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - Repartition Test Time
Seconds, Fewer Is Better
A
17.74
B
17.63
4
8
12
16
20
Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - Inner Join Test Time
Seconds, Fewer Is Better
A
21.62
B
22.34
5
10
15
20
25
Apache Spark 3.3
Row Count: 20000000 - Partitions: 100 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
22.78
B
21.77
5
10
15
20
25
Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
22.90
B
24.25
6
12
18
24
30

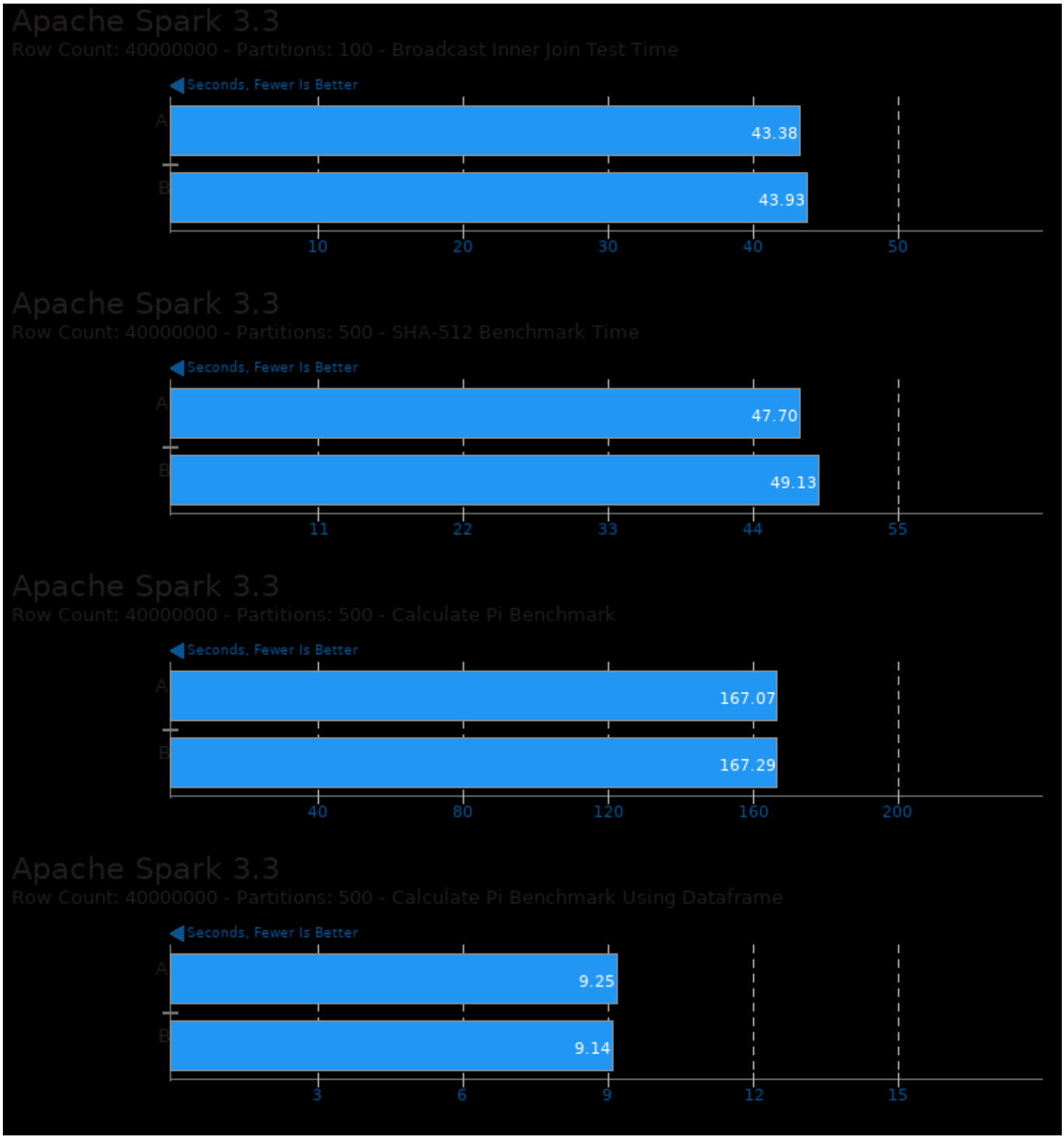
xeon aug


Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
165.43
B
164.55
40
80
120
160
200
Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.134482679
B
9.220000000
3
6
9
12
15
Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - Group By Test Time
Seconds, Fewer Is Better
A
12.22
B
12.33
3
6
9
12
15
Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - Repartition Test Time
Seconds, Fewer Is Better
A
16.39
B
16.70
4
8
12
16
20

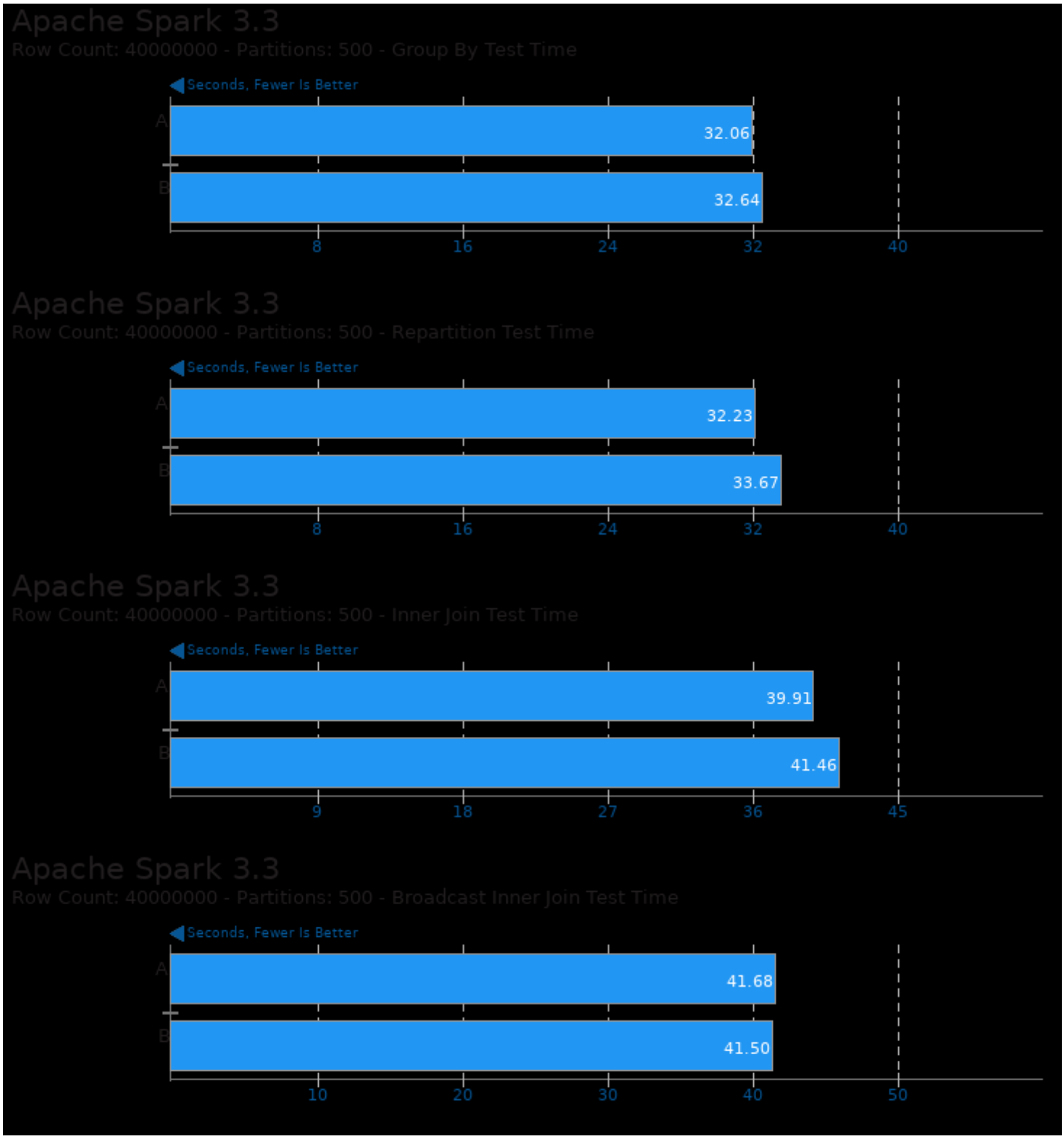

Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - Inner Join Test Time
Seconds, Fewer Is Better
A
19.63
B
19.75
5
10
15
20
25
Apache Spark 3.3
Row Count: 20000000 - Partitions: 500 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
18.85
B
19.85
5
10
15
20
25
Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
47.38
B
49.67
11
22
33
44
55
Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
166.12
B
166.55
40
80
120
160
200

xeon aug

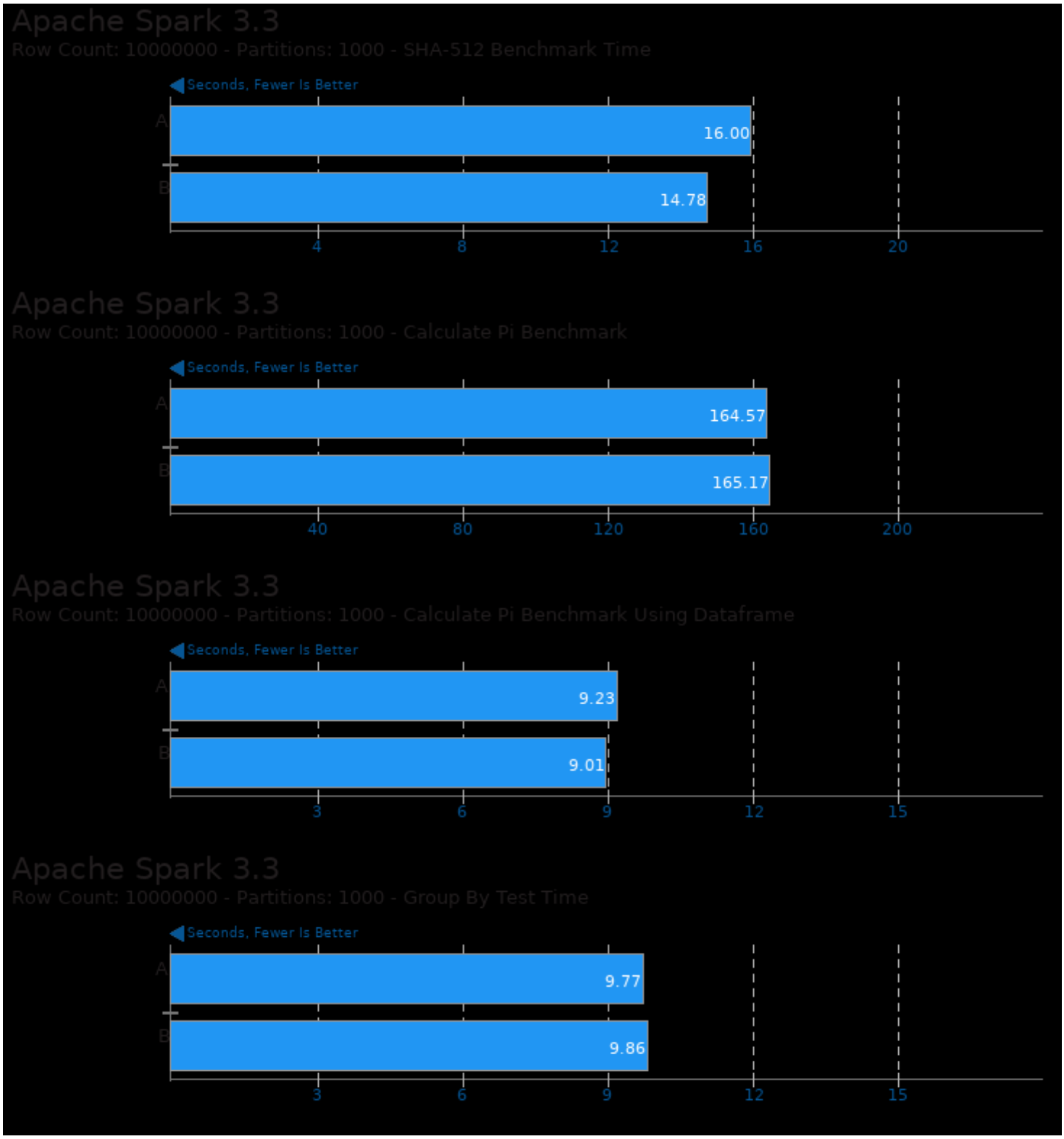

Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.19
B
9.14
3
6
9
12
15
Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - Group By Test Time
Seconds, Fewer Is Better
A
33.53
B
33.73
8
16
24
32
40
Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - Repartition Test Time
Seconds, Fewer Is Better
A
34.88
B
34.38
8
16
24
32
40
Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - Inner Join Test Time
Seconds, Fewer Is Better
A
42.60
B
42.30
10
20
30
40
50


Apache Spark 3.3
Row Count: 40000000 - Partitions: 100 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
43.38
B
43.93
10
20
30
40
50
Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
47.70
B
49.13
11
22
33
44
55
Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
167.07
B
167.29
40
80
120
160
200
Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.25
B
9.14
3
6
9
12
15

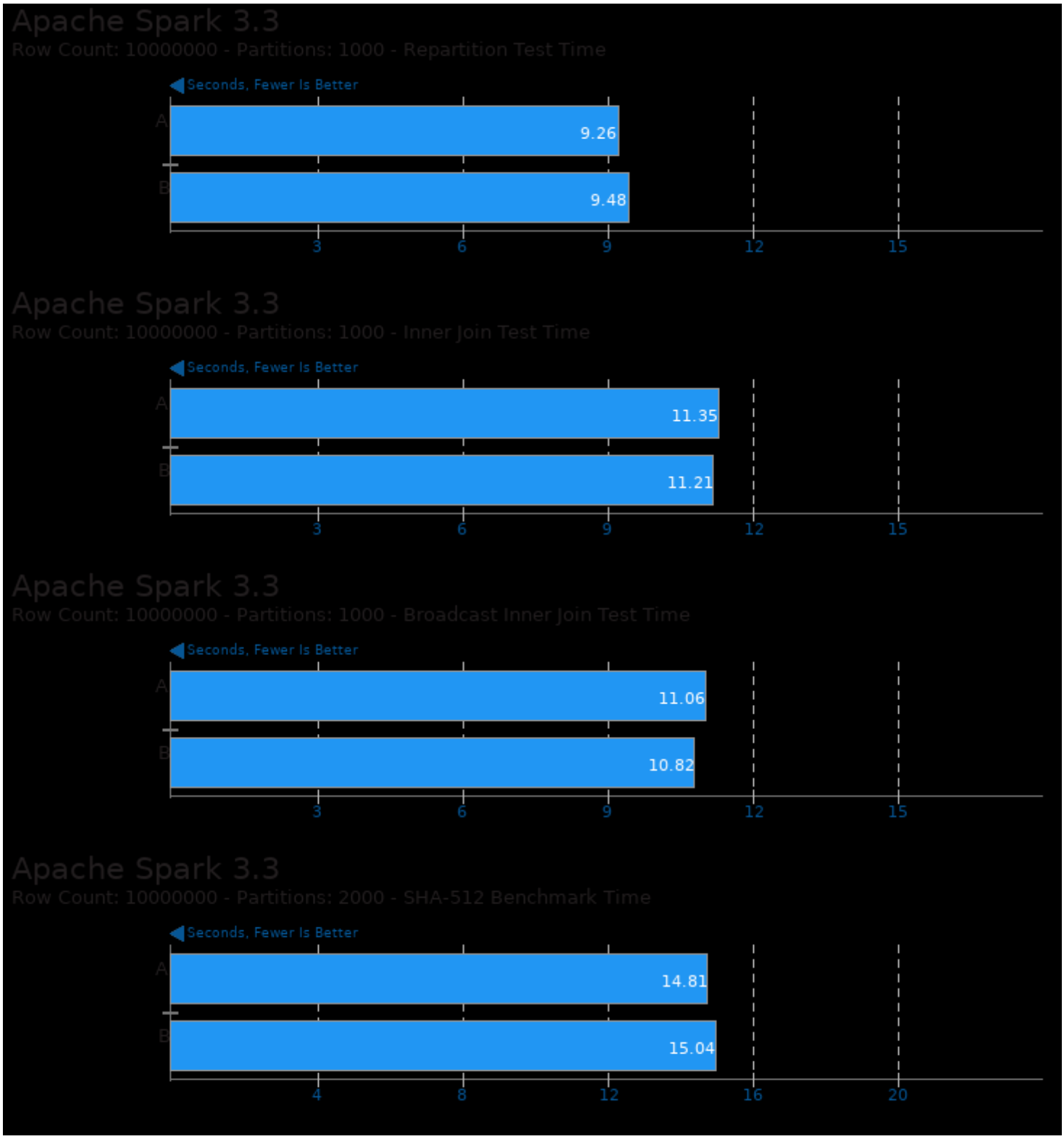
xeon aug


Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - Group By Test Time
Seconds, Fewer Is Better
A
32.06
B
32.64
8
16
24
32
40
Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - Repartition Test Time
Seconds, Fewer Is Better
A
32.23
B
33.67
8
16
24
32
40
Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - Inner Join Test Time
Seconds, Fewer Is Better
A
39.91
B
41.46
9
18
27
36
45
Apache Spark 3.3
Row Count: 40000000 - Partitions: 500 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
41.68
B
41.50
10
20
30
40
50

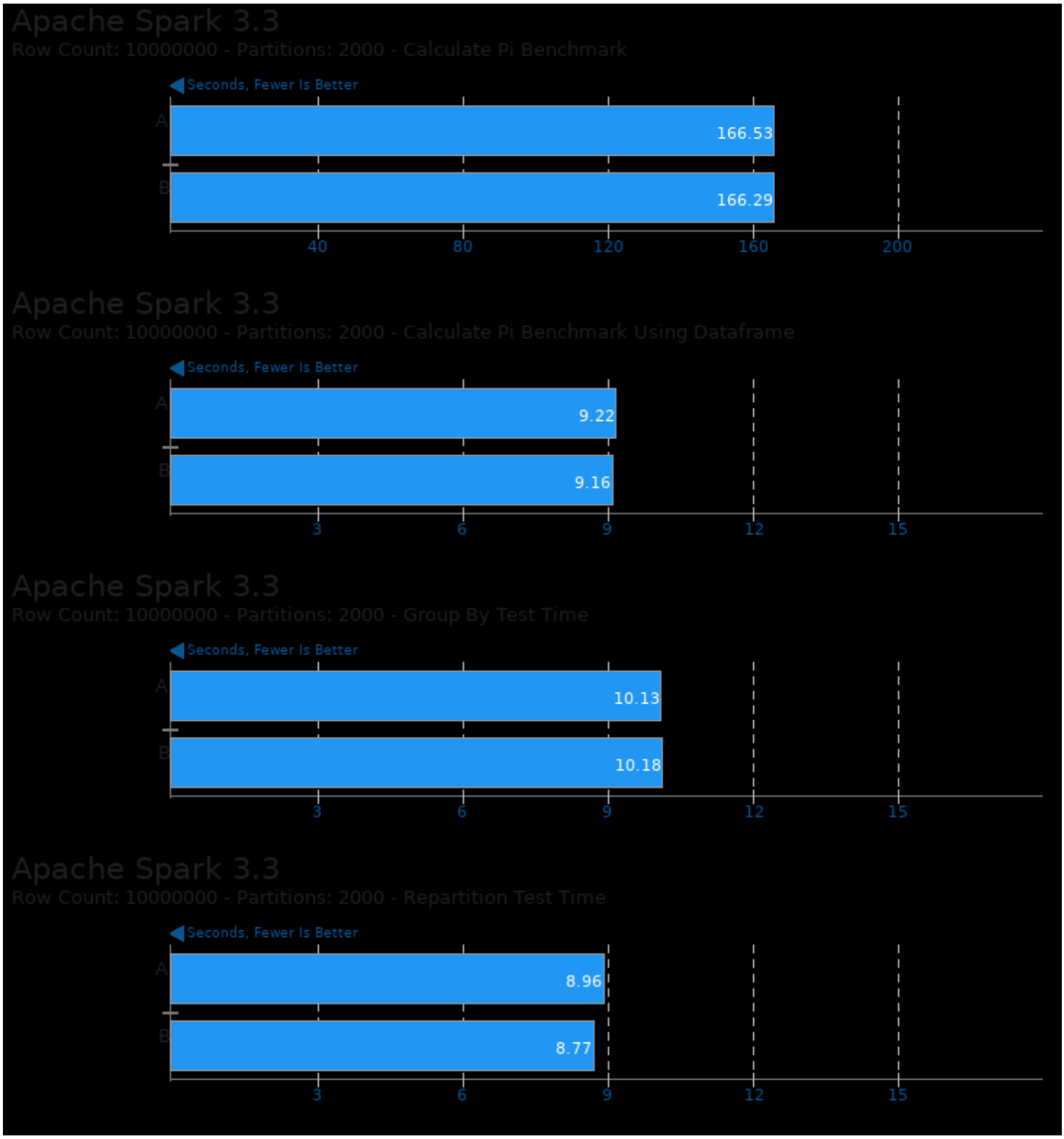
xeon aug

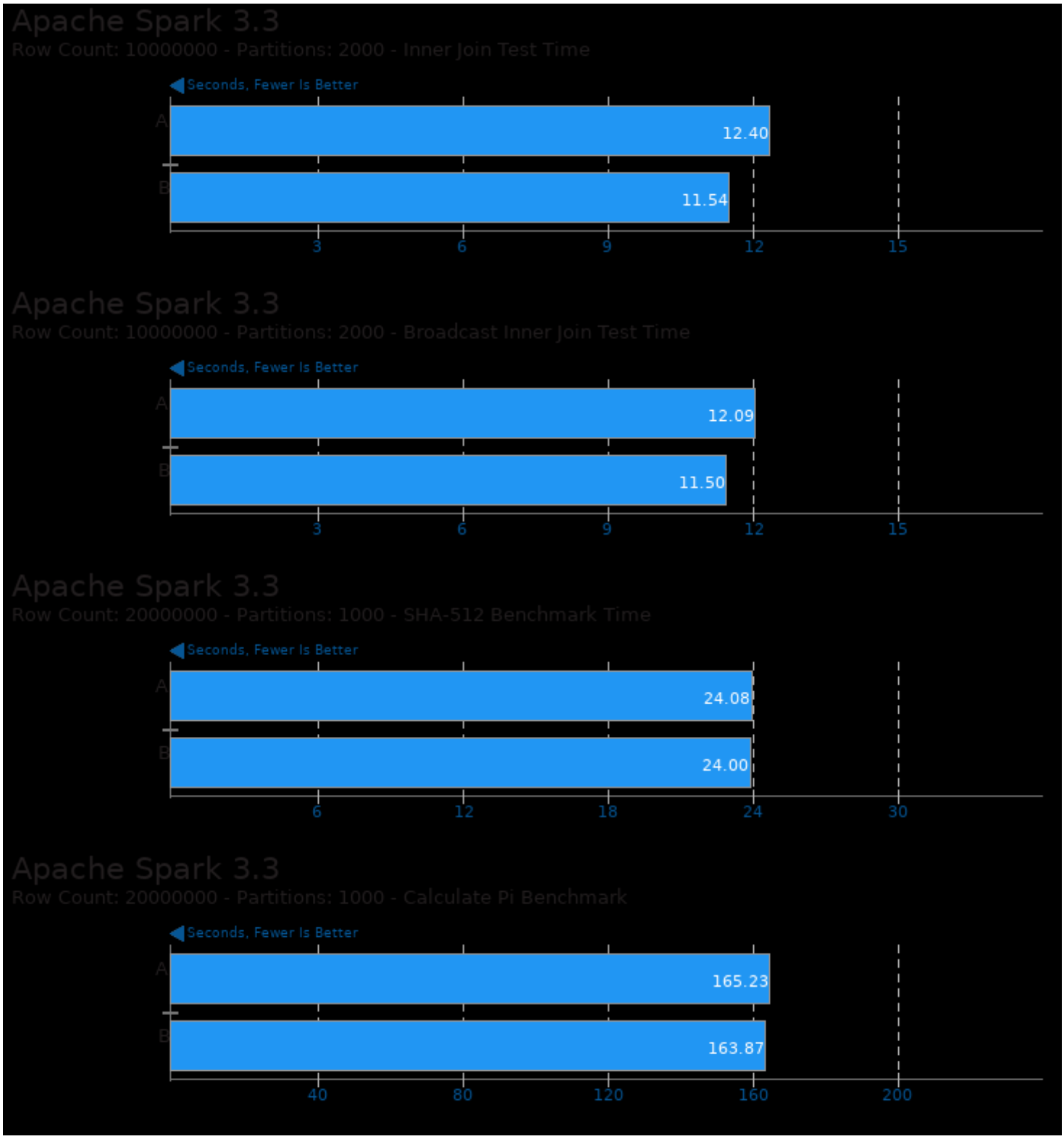

Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
16.00
B
14.78
4
8
12
16
20
Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.57
B
165.17
40
80
120
160
200
Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.23
B
9.01
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - Group By Test Time
Seconds, Fewer Is Better
A
9.77
B
9.86
3
6
9
12
15

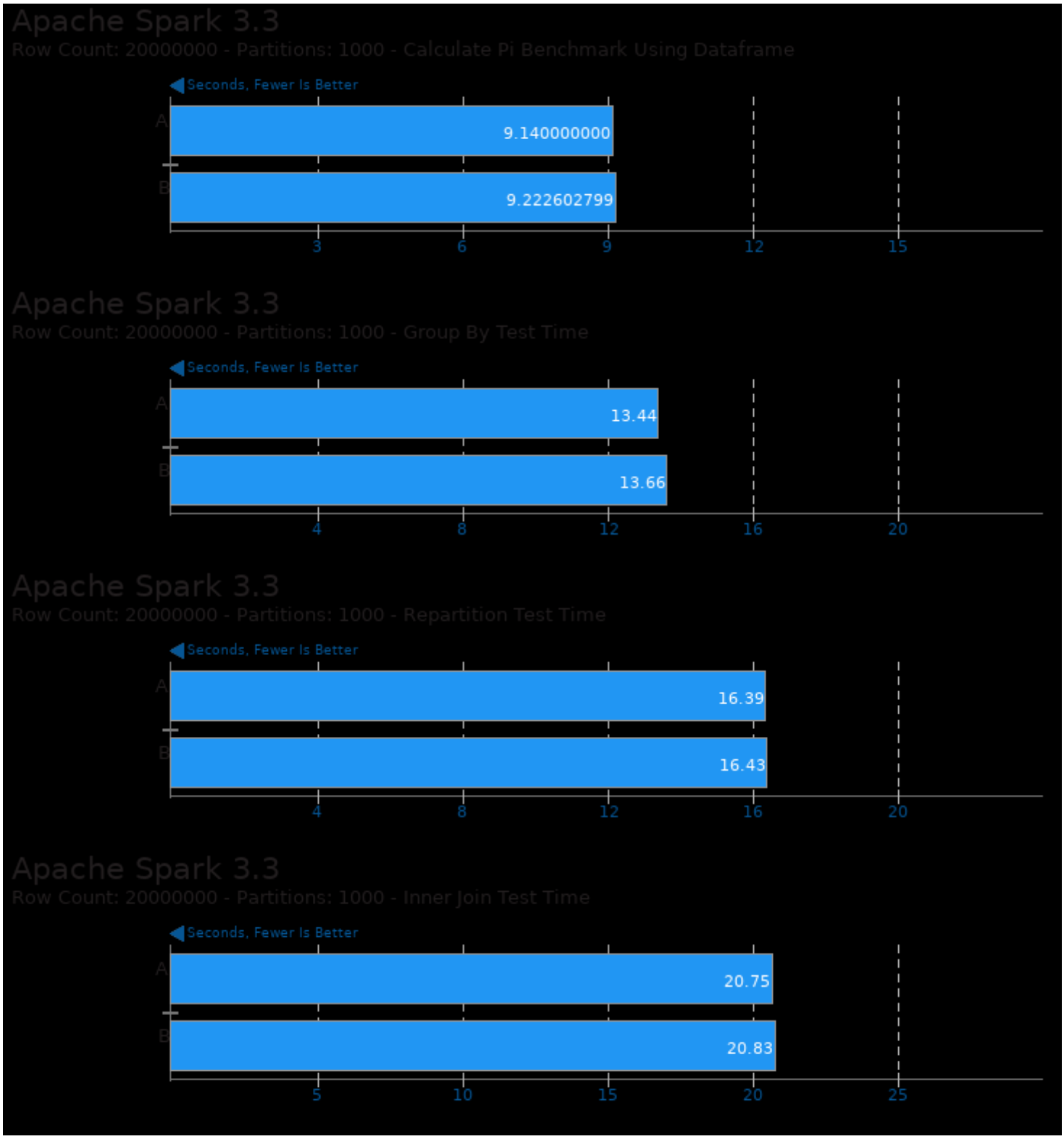
xeon aug

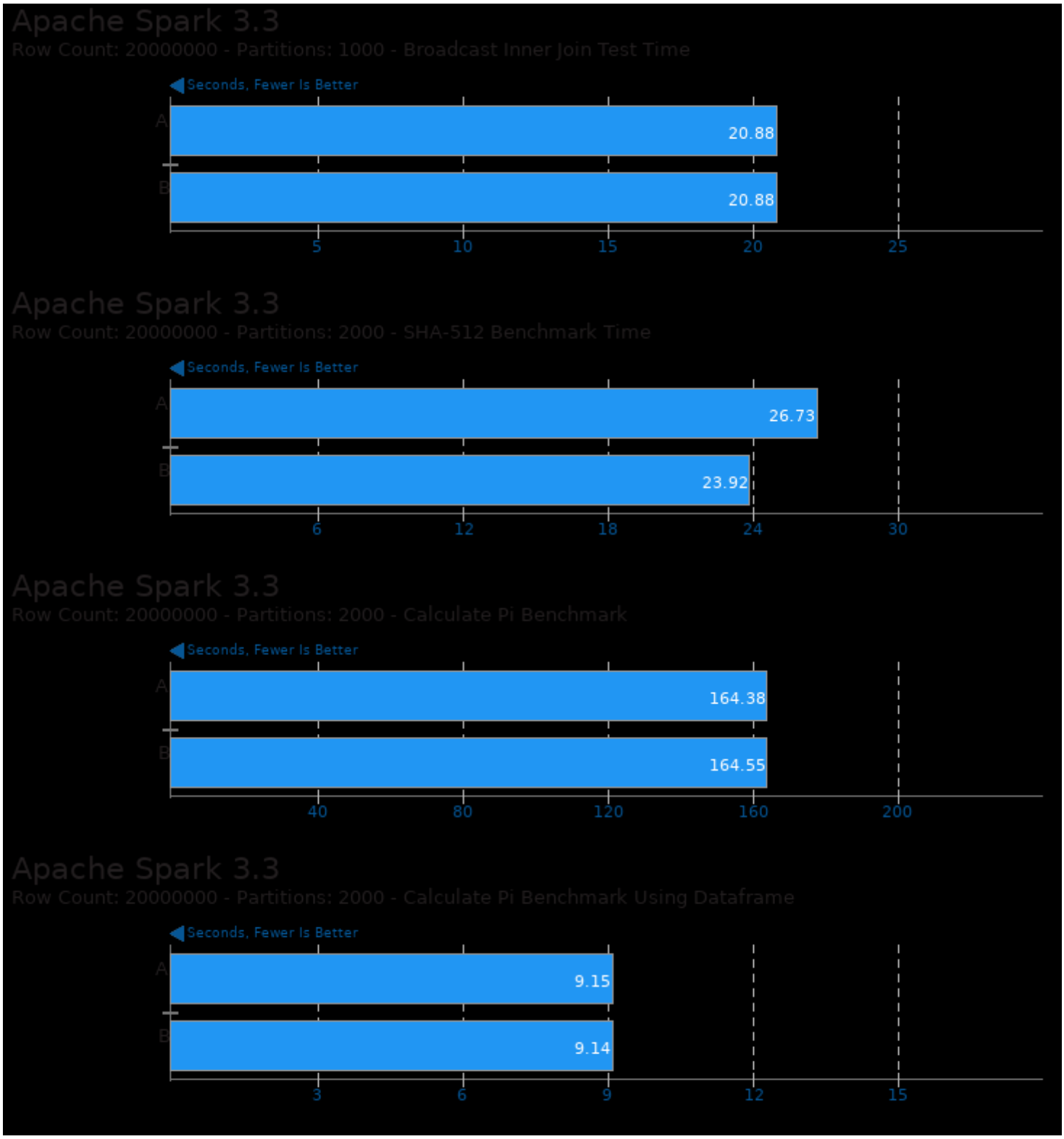

Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - Repartition Test Time
Seconds, Fewer Is Better
A
9.26
B
9.48
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - Inner Join Test Time
Seconds, Fewer Is Better
A
11.35
B
11.21
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 1000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
11.06
B
10.82
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
14.81
B
15.04
4
8
12
16
20

xeon aug

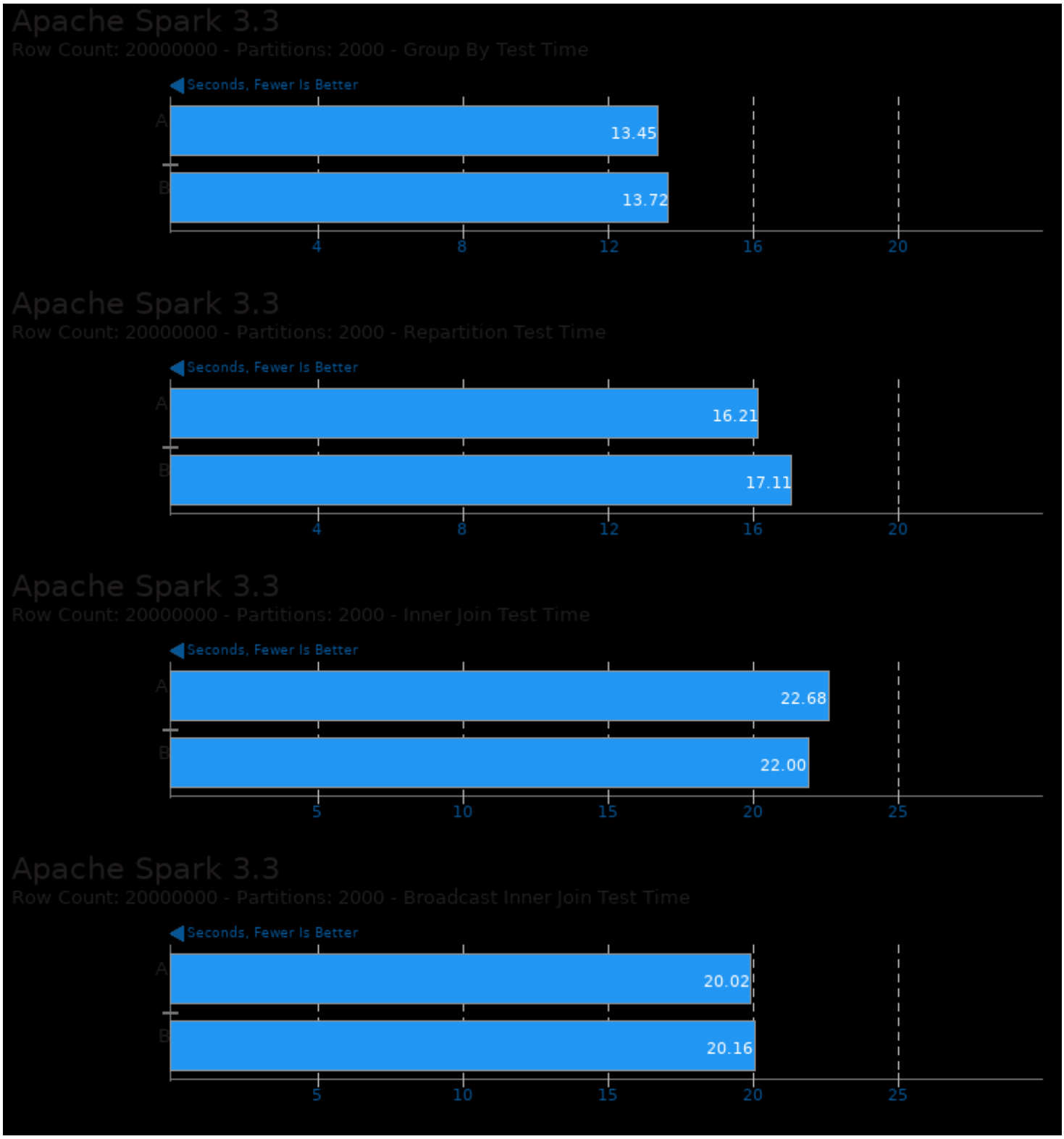

Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
166.53
B
166.29
40
80
120
160
200
Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.22
B
9.16
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - Group By Test Time
Seconds, Fewer Is Better
A
10.13
B
10.18
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - Repartition Test Time
Seconds, Fewer Is Better
A
8.96
B
8.77
3
6
9
12
15

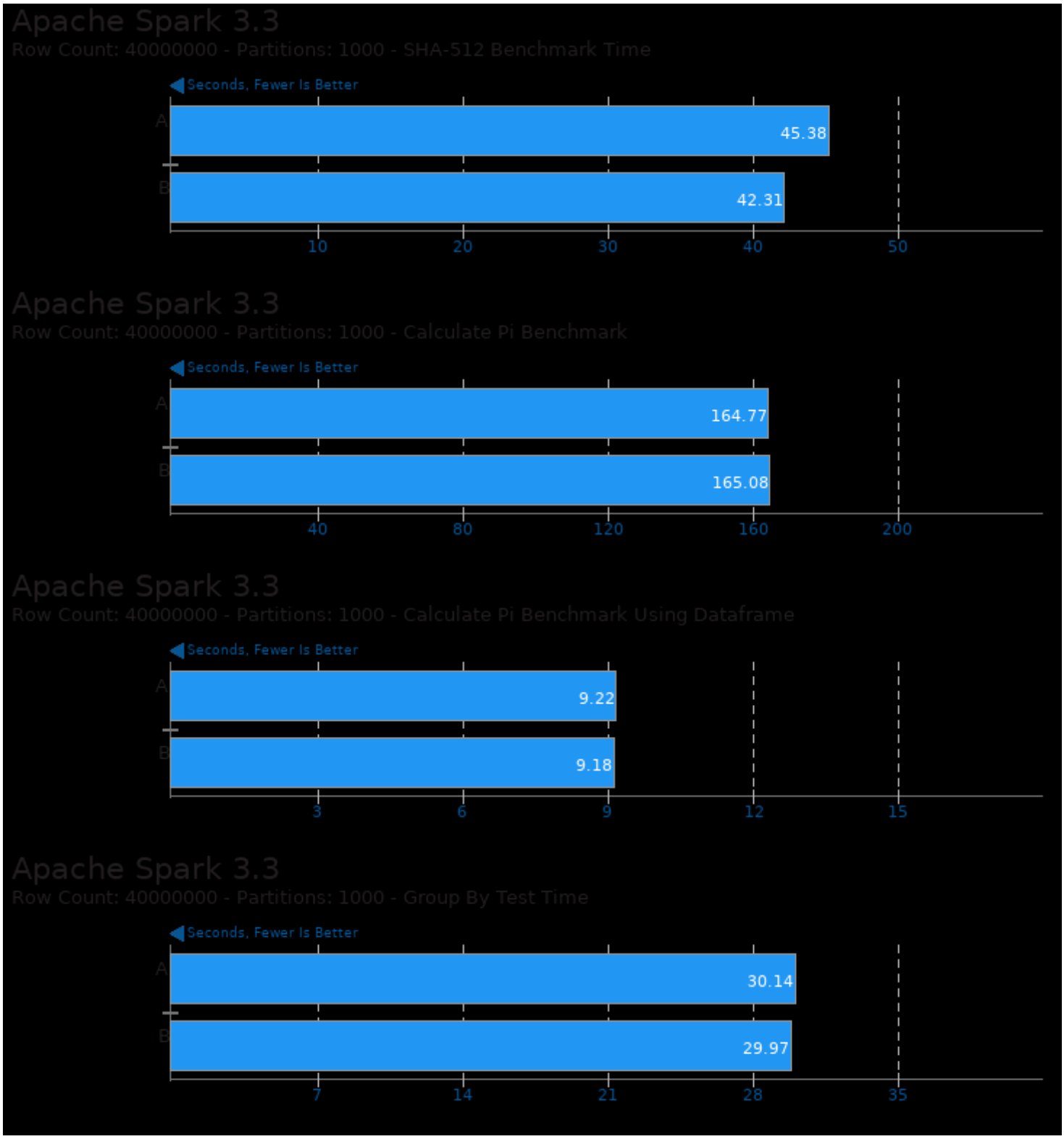

Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - Inner Join Test Time
Seconds, Fewer Is Better
A
12.40
B
11.54
3
6
9
12
15
Apache Spark 3.3
Row Count: 10000000 - Partitions: 2000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
12.09
B
11.50
3
6
9
12
15
Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
24.08
B
24.00
6
12
18
24
30
Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
165.23
B
163.87
40
80
120
160
200

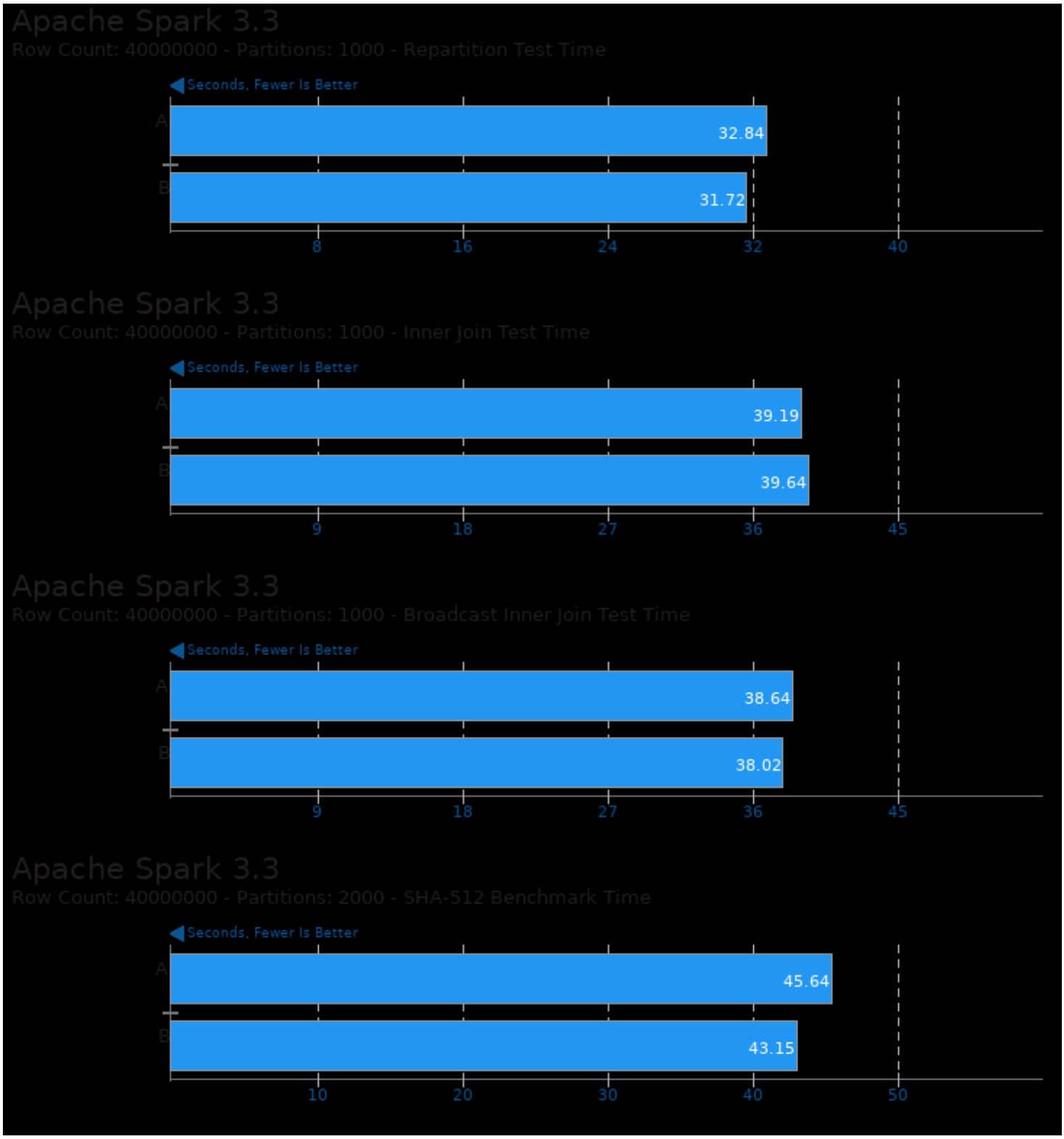

Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.140000000
B
9.222602799
3
6
9
12
15
Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - Group By Test Time
Seconds, Fewer Is Better
A
13.44
B
13.66
4
8
12
16
20
Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - Repartition Test Time
Seconds, Fewer Is Better
A
16.39
B
16.43
4
8
12
16
20
Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - Inner Join Test Time
Seconds, Fewer Is Better
A
20.75
B
20.83
5
10
15
20
25

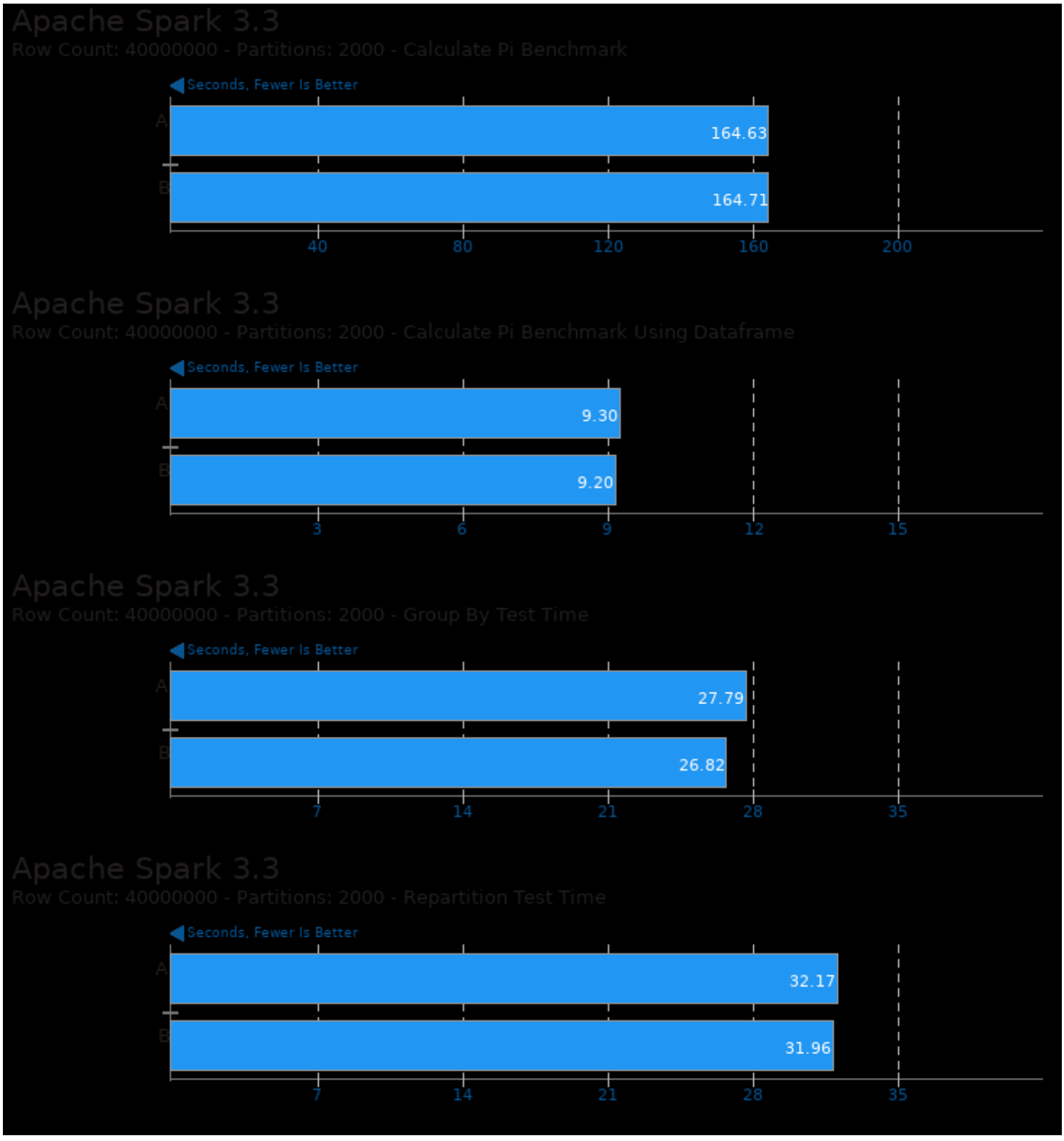

Apache Spark 3.3
Row Count: 20000000 - Partitions: 1000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
20.88
B
20.88
5
10
15
20
25
Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
26.73
B
23.92
6
12
18
24
30
Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.38
B
164.55
40
80
120
160
200
Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.15
B
9.14
3
6
9
12
15

xeon aug

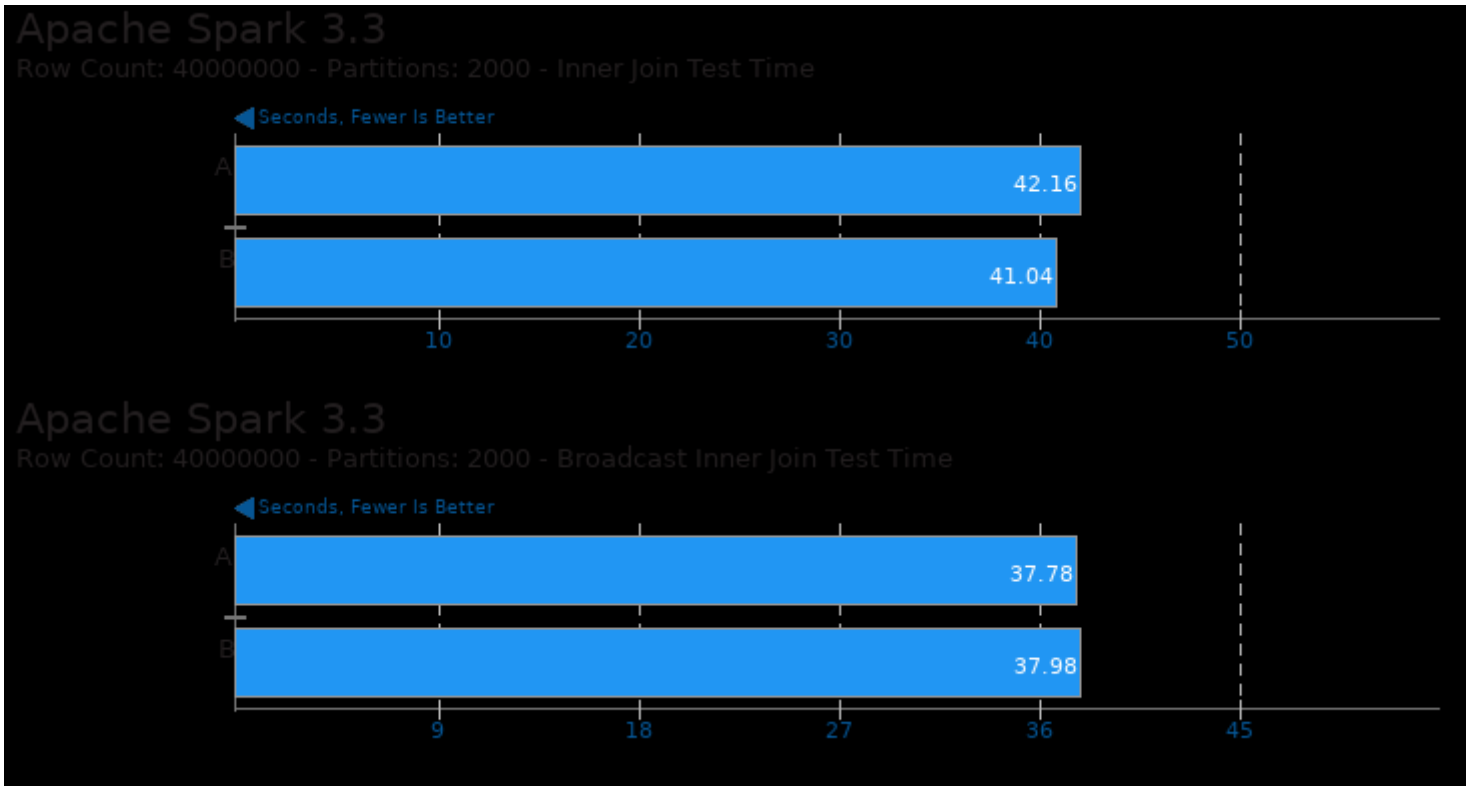

Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - Group By Test Time
Seconds, Fewer Is Better
A
13.45
B
13.72
4
8
12
16
20
Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - Repartition Test Time
Seconds, Fewer Is Better
A
16.21
B
17.11
4
8
12
16
20
Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - Inner Join Test Time
Seconds, Fewer Is Better
A
22.68
B
22.00
5
10
15
20
25
Apache Spark 3.3
Row Count: 20000000 - Partitions: 2000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
20.02
B
20.16
5
10
15
20
25


Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
45.38
B
42.31
10
20
30
40
50
Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.77
B
165.08
40
80
120
160
200
Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.22
B
9.18
3
6
9
12
15
Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - Group By Test Time
Seconds, Fewer Is Better
A
30.14
B
29.97
7
14
21
28
35


Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - Repartition Test Time
Seconds, Fewer Is Better
A
32.84
B
31.72
8
16
24
32
40
Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - Inner Join Test Time
Seconds, Fewer Is Better
A
39.19
B
39.64
9
18
27
36
45
Apache Spark 3.3
Row Count: 40000000 - Partitions: 1000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
38.64
B
38.02
9
18
27
36
45
Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - SHA-512 Benchmark Time
Seconds, Fewer Is Better
A
45.64
B
43.15
10
20
30
40
50

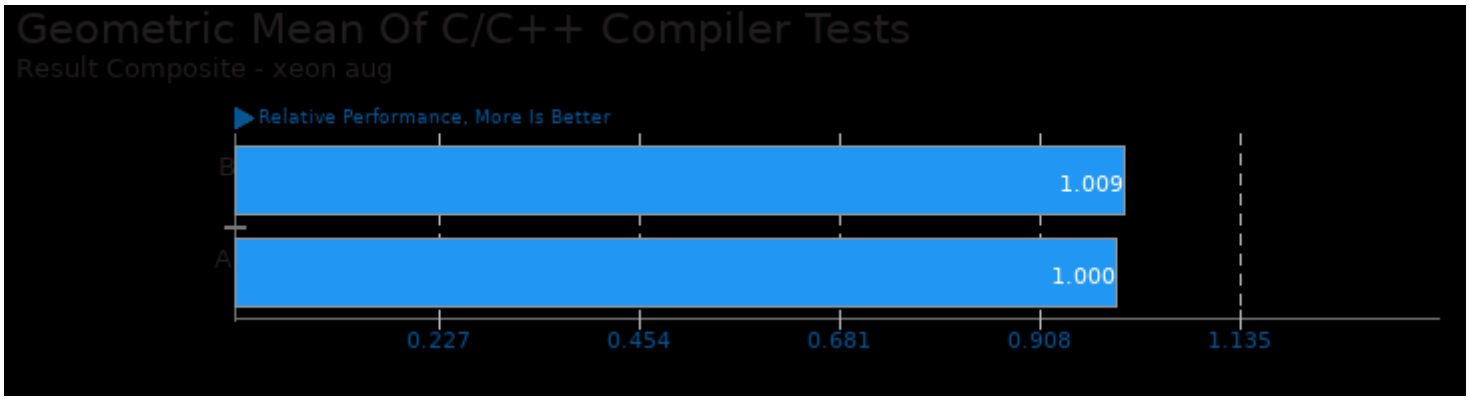

Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - Calculate Pi Benchmark
Seconds, Fewer Is Better
A
164.63
B
164.71
40
80
120
160
200
Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - Calculate Pi Benchmark Using Dataframe
Seconds, Fewer Is Better
A
9.30
B
9.20
3
6
9
12
15
Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - Group By Test Time
Seconds, Fewer Is Better
A
27.79
B
26.82
7
14
21
28
35
Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - Repartition Test Time
Seconds, Fewer Is Better
A
32.17
B
31.96
7
14
21
28
35

xeon aug

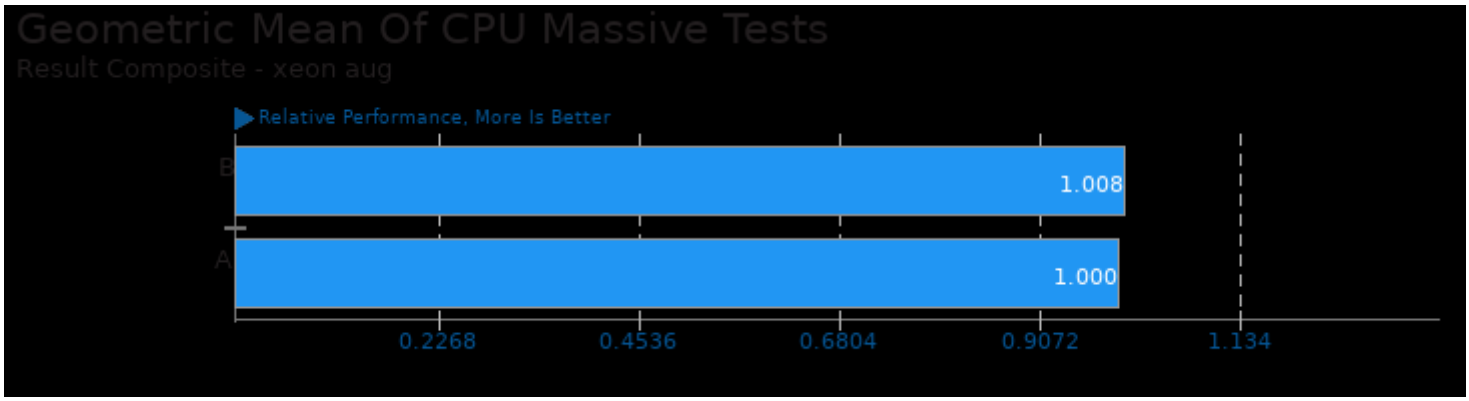

Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - Inner Join Test Time
Seconds, Fewer Is Better
A
B
42.16
41.04
10
20
30
40
50
Apache Spark 3.3
Row Count: 40000000 - Partitions: 2000 - Broadcast Inner Join Test Time
Seconds, Fewer Is Better
A
B
37.78
37.98
9
18
27
36
45

xeon aug

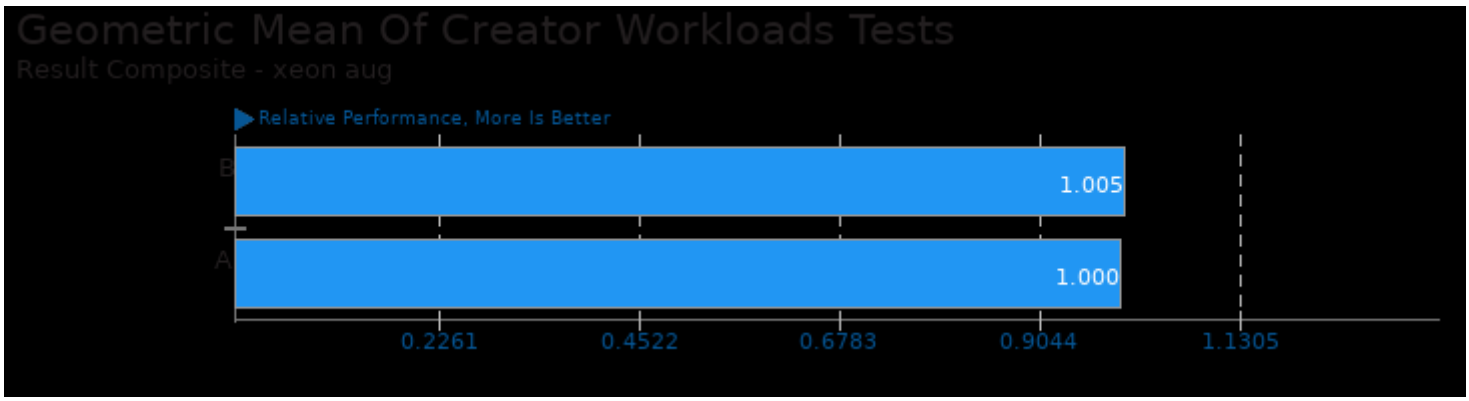
These geometric means are based upon test groupings / test suites for this result file.



Geometric mean based upon tests: pts/lammps, pts/aircrack-ng and pts/svt-av1

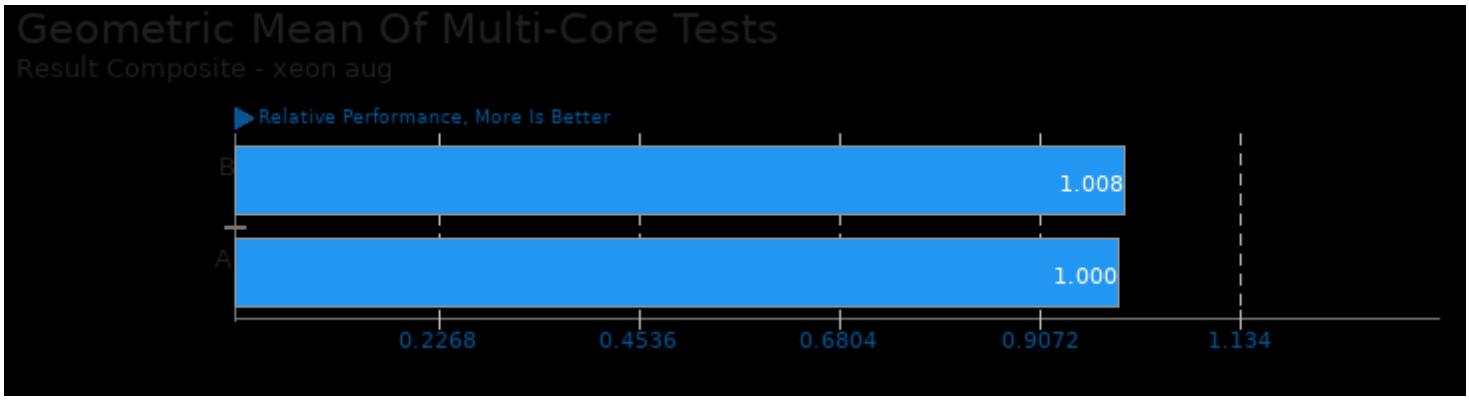


Geometric mean based upon tests: pts/svt-av1, pts/lammps and pts/primesieve



Geometric mean based upon tests: pts/svt-av1 and pts/astcenc

xeon aug



Geometric mean based upon tests: pts/aircrack-ng, pts/svt-av1, pts/primesieve and pts/lammps



Geometric mean based upon tests: pts/node-web-tooling and pts/spark

This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 19:05.