# 1 Experiment 4 of set Separable Convolutions (64 filters)

# 1.1 Device and Version Information

# 1.1.1 CPU Information

cpuinfo_version 5, 0, 0  arch X86_64  bits 64  count 32  raw_arch_string x86_64  vendor_id GenuineIntel  brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz  hz_advertised 2.4000 GHz  hz_actual zequel 2.2985 GHz  hz_advertised_raw 2400000000, 0  hz_actual_raw 2298468000, 0  stepping 2  model 63  family 6  flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmil, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, fl6c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdelgb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_l, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  13_cache_size 20480 KB  12_cache_size 256 KB  11_data_cache_size 32 KB  11_instruction_cache_size 32 KB	python_version	3.7.4.final.0 (64 bit)
bits 64  count 32  raw_arch_string x86_64  vendor_id GenuineIntel  brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz  hz_actual 2.4900 GHz  hz_actual 2.2985 GHz  hz_actual_raw 2400000000, 0  hz_actual_raw 2298468000, 0  stepping 2  model 63  family 6  flags  abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpelgb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  l3_cache_size 20480 KB  l1_data_cache_size 32 KB  l1_instruction_cache_size 32 KB  l1_instruction_cache_size 32 KB	cpuinfo_version	
count 32 raw_arch_string x86_64 vendor_id GenuineIntel brand Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz hz_actual 2.2985 GHz hz_actual raw 2400000000, 0 hz_actual raw 2298468000, 0 stepping 2 model 63 family 6 flags flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  l3_cache_size 20480 KB l1_data_cache_size 32 KB l1_instruction_cache_size 32 KB l1_instruction_cache_size 32 KB	arch	X86_64
raw_arch_string	bits	64
vendor_id	count	32
brand   Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz     hz_advertised   2.4000 GHz     hz_actual   2.2985 GHz     hz_actual_raw   2400000000, 0     hz_actual_raw   2298468000, 0     stepping   2     model   63     family   6     flags   abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr    13_cache_size   20480 KB     12_cache_size   256 KB     11_data_cache_size   32 KB     11_instruction_cache_size   32 KB     11_instruction_cache_size   32 KB     11_instruction_cache_size   32 KB     12_instruction_cache_size   32 KB     11_instruction_cache_size   32 KB     12_instruction_cache_size   32 KB     11_instruction_cache_size   32 KB	raw_arch_string	
hz_advertised   2.4000 GHz     hz_actual   2.2985 GHz     hz_advertised_raw   2400000000, 0     hz_actual_raw   2298468000, 0     stepping   2     model   63     family   6     flags   abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmil, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr    l3_cache_size   20480 KB     l2_cache_size   256 KB     l1_data_cache_size   32 KB     l1_instruction_cache_size   32 KB     l1_instruction_cache_size   32 KB     l1_instruction_cache_size   32 KB     l2_instruction_cache_size   32 KB     l	vendor_id	
hz_actual		
hz_advertised_raw 2400000000, 0 hz_actual_raw 2298468000, 0  stepping 2 model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  l3_cache_size 20480 KB  l1_data_cache_size 32 KB  l1_instruction_cache_size 32 KB  l1_instruction_cache_size 32 KB	_	
hz_actual_raw 2298468000, 0  stepping 2  model 63  family 6  flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  13_cache_size 20480 KB  11_data_cache_size 32 KB  11_instruction_cache_size 32 KB	hz_actual	2.2985 GHz
stepping 2 model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  l3_cache_size 20480 KB l1_data_cache_size 32 KB l1_instruction_cache_size 32 KB		/
model 63 family 6 flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  l3_cache_size 20480 KB  l1_data_cache_size 32 KB  l1_instruction_cache_size 32 KB	hz_actual_raw	· · · · · · · · · · · · · · · · · · ·
family 6  flags  flags  flags  abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  13_cache_size 20480 KB  12_cache_size 256 KB  11_data_cache_size 32 KB  11_instruction_cache_size 32 KB		
flags abm, acpi, aperfmperf, apic, arat, arch_perfmon, avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  13_cache_size 20480 KB  12_cache_size 256 KB  11_data_cache_size 32 KB  11_instruction_cache_size 32 KB		
avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, ssse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi, vpid, x2apic, xsave, xsaveopt, xtopology, xtpr  13_cache_size 20480 KB  12_cache_size 256 KB  11_data_cache_size 32 KB  11_instruction_cache_size 32 KB	- v	
13_cache_size   20480 KB     12_cache_size   256 KB     11_data_cache_size   32 KB     11_instruction_cache_size   32 KB	flags	avx, avx2, bmi1, bmi2, bts, clflush, cmov, constant_tsc, cqm, cqm_llc, cqm_occup_llc, cx16, cx8, dca, de, ds_cpl, dtes64, dtherm, dts, eagerfpu, epb, ept, erms, est, f16c, flexpriority, fma, fpu, fsgsbase, fxsr, ht, ibpb, ibrs, ida, invpcid, invpcid_single, kaiser, lahf_lm, lm, mca, mce, mmx, monitor, movbe, msr, mtrr, nonstop_tsc, nopl, nx, osxsave, pae, pat, pbe, pcid, pclmulqdq, pdcm, pdpe1gb, pebs, pge, pln, pni, popcnt, pqm, pse, pse36, pts, rdrand, rdrnd, rdtscp, rep_good, sdbg, sep, smep, smx, ss, sse, sse2, sse4_1, sse4_2, sse3, stibp, syscall, tm, tm2, tpr_shadow, tsc, tsc_adjust, tsc_deadline_timer, tscdeadline, vme, vmx, vnmi,
12_cache_size   256 KB   11_data_cache_size   32 KB   11_instruction_cache_size   32 KB	l3 cache size	
l1_data_cache_size 32 KB l1_instruction_cache_size 32 KB		
l1_instruction_cache_size 32 KB		
12 cache line size   6	l2 cache line size	6
12 cache associativity 0x100	l2 cache associativity	0x100
extended model 3		3

### 1.1.2 GPU Information

Num GPUs: 1

Num Gros. 1	
name	Tesla K40m
total_memory	11441 MiB
driver_version	410.78
cuda_version	10.0

### 1.1.3 Carbon Estimation Information

Experiment Impact Tracker Version	0.1	
Compute Region	US-CA	
average gCO2eq/kWh	290.6468353671373	
Carbon Data Source	Live Data Fromhttp://www.caiso.com/outlook/SP/H	$\frac{\text{story}}{\text{date}} / c$
Assumed PUE	1.58	

1.2 Experiment Info

Experiment Start Time	1570686797.142736
Experiment Length (hours)	0.11383354359202914
Intel (CPU+DRAM, RAPL) Power Usage (kWh)	0.0012703206360954518
NVIDIA (GPU) Power Usage (kWh)	0.016972924325670137
Total (Including PUE Mult.) Power (kWh)	0.028824327039589634
Estimated Carbon Impact (kgCO2eq)	0.008376787332231836
Final CPU-Hours (psutil estimate)	0.12595833333333333
Final GPU-Hours (climate-impact-tracker estimate)	0.11054888433549137