

Threshold-based Probability Estimation

Measurement	Threshold	Threshold_Value	Probability_Larger	Probability_Smaller
load-15m	mean	0.0778	0.5037	0.4963
load-15m	10%(max)	0.026	0.7479	0.2521
load-15m	90%(max)	0.234	0.0157	0.9843
memory_used_pct	mean	3.3328	0.3825	0.6175
memory_used_pct	10%(max)	0.4878	1.0	0.0
memory_used_pct	90%(max)	4.3904	0.0027	0.9973
cpu-user	mean	0.0431	0.4081	0.5919
cpu-user	10%(max)	0.0106	1.0	0.0
cpu-user	90%(max)	0.0954	0.014	0.986
cpu-system	mean	0.0343	0.3973	0.6027
cpu-system	10%(max)	0.0072	1.0	0.0
cpu-system	90%(max)	0.0648	0.0198	0.9802
sys-thermal	mean	0.6357	0.4392	0.5608
sys-thermal	10%(max)	0.31	0.4477	0.5523
sys-thermal	90%(max)	2.79	0.0011	0.9989
sys-interrupt-rate	mean	990.5957	0.4215	0.5785
sys-interrupt-rate	10%(max)	128.435	1.0	0.0
sys-interrupt-rate	90%(max)	1155.915	0.0378	0.9622
disk-io-time	mean	0.0009	0.5763	0.4237
disk-io-time	10%(max)	0.0002	0.8525	0.1475
disk-io-time	90%(max)	0.002	0.0163	0.9837

Crosstable Analysis Based on Mean Threshold

	x > Mean	x < Mean	Total
load-15m	36067	35539	71606
memory_used_pct	27392	44214	71606
cpu-user	29225	42381	71606
cpu-system	28447	43159	71606
sys-thermal	31452	40154	71606
sys-interrupt-rate	30182	41424	71606
disk-io-time	41267	30339	71606

Conditional Probability Analysis

Condition	Probability
P(load-15m > (mean) memory_used_pct > (mean))	0.3261
P(load-15m < (mean) memory_used_pct > (mean))	0.0565
P(load-15m > (mean) cpu-user > (mean))	0.2584
P(load-15m < (mean) cpu-user > (mean))	0.1497
P(load-15m > (mean) cpu-system > (mean))	0.2515
P(load-15m < (mean) cpu-system > (mean))	0.1458
P(load-15m > (mean) sys-thermal > (mean))	0.2266
P(load-15m < (mean) sys-thermal > (mean))	0.2127
P(load-15m < 10%(max) sys-thermal < 10%(max))	0.143
P(sys-thermal < 10%(max) load-15m > 90%(max))	0.0082
P(load-15m > 90%(max) sys-thermal < 10%(max))	0.0082
P(load-15m > (mean) sys-interrupt-rate > (mean))	0.2735
P(load-15m < (mean) sys-interrupt-rate > (mean))	0.148
P(load-15m > 90%(max) sys-interrupt-rate > 90%(max))	0.0016
P(load-15m > (mean) disk-io-time > (mean))	0.3368
P(load-15m < (mean) disk-io-time > (mean))	0.2395
P(load-15m < 10%(max) disk-io-time < 10%(max))	0.055
P(memory_used_pct > (mean) cpu-user > (mean))	0.2392
P(memory_used_pct < (mean) cpu-user > (mean))	0.1689
P(memory_used_pct > (mean) cpu-system > (mean))	0.2333
P(memory_used_pct < (mean) cpu-system > (mean))	0.1639
P(memory_used_pct > (mean) sys-thermal > (mean))	0.1755
P(memory_used_pct < (mean) sys-thermal > (mean))	0.2637
P(sys-thermal < 10%(max) memory_used_pct > 90%(max))	0.0014
P(memory_used_pct > 90%(max) sys-thermal < 10%(max))	0.0014
P(memory_used_pct > (mean) sys-interrupt-rate > (mean))	0.2589
P(memory_used_pct < (mean) sys-interrupt-rate > (mean))	0.1626
P(memory_used_pct > 90%(max) sys-interrupt-rate > 90%(max))	0.0012
P(memory_used_pct > (mean) disk-io-time > (mean))	0.3055
P(memory_used_pct < (mean) disk-io-time > (mean))	0.2708
P(cpu-user > (mean) cpu-system > (mean))	0.3282
P(cpu-user < (mean) cpu-system > (mean))	0.0691
P(cpu-user > 90%(max) cpu-system > 90%(max))	0.0078
P(cpu-user > (mean) sys-thermal > (mean))	0.1849
P(cpu-user < (mean) sys-thermal > (mean))	0.2543
P(sys-thermal < 10%(max) cpu-user > 90%(max))	0.0059
P(cpu-user > 90%(max) sys-thermal < 10%(max))	0.0059
P(cpu-user > (mean) sys-interrupt-rate > (mean))	0.2837
P(cpu-user < (mean) sys-interrupt-rate > (mean))	0.1378
P(cpu-user > 90%(max) sys-interrupt-rate > 90%(max))	0.0026
P(cpu-user > (mean) disk-io-time > (mean))	0.289
P(cpu-user < (mean) disk-io-time > (mean))	0.2874
P(cpu-user > 90%(max) disk-io-time > 90%(max))	0.0012
P(cpu-system > (mean) sys-thermal > (mean))	0.1793
P(cpu-system < (mean) sys-thermal > (mean))	0.2599
P(sys-thermal < 10%(max) cpu-system > 90%(max))	0.0086
P(cpu-system > 90%(max) sys-thermal < 10%(max))	0.0086
P(cpu-system > (mean) sys-interrupt-rate > (mean))	0.2839
P(cpu-system < (mean) sys-interrupt-rate > (mean))	0.1376
P(cpu-system > 90%(max) sys-interrupt-rate > 90%(max))	0.0068
P(cpu-system > (mean) disk-io-time > (mean))	0.2806
P(cpu-system < (mean) disk-io-time > (mean))	0.2957
P(cpu-system > 90%(max) disk-io-time > 90%(max))	0.0017
P(sys-thermal > (mean) sys-interrupt-rate > (mean))	0.1926
P(sys-thermal < (mean) sys-interrupt-rate > (mean))	0.2289
P(sys-thermal < 10%(max) sys-interrupt-rate > 90%(max))	0.0186
P(sys-interrupt-rate > 90%(max) sys-thermal < 10%(max))	0.0186
P(sys-thermal > (mean) disk-io-time > (mean))	0.2575
P(sys-thermal < (mean) disk-io-time > (mean))	0.3188
P(sys-thermal < 10%(max) disk-io-time < 10%(max))	0.0831
P(sys-thermal < 10%(max) disk-io-time > 90%(max))	0.0081
P(disk-io-time > 90%(max) sys-thermal < 10%(max))	0.0081
P(sys-interrupt-rate > (mean) disk-io-time > (mean))	0.3175
P(sys-interrupt-rate < (mean) disk-io-time > (mean))	0.2588
P(sys-interrupt-rate > 90%(max) disk-io-time > 90%(max))	0.0035