

Threshold-based Probability Estimation

Measurement	Threshold	Threshold_Value	Probability_Larger	Probability_Smaller
load-15m	mean	7.0271	0.4225	0.5775
load-15m	10%(max)	3.1	0.5939	0.4061
load-15m	90%(max)	27.9	0.0105	0.9895
memory_used_pct	mean	6.3436	0.3247	0.6753
memory_used_pct	10%(max)	1.0578	1.0	0.0
memory_used_pct	90%(max)	9.5199	0.0012	0.9988
cpu-user	mean	0.0314	0.4013	0.5987
cpu-user	10%(max)	0.0061	1.0	0.0
cpu-user	90%(max)	0.0545	0.0109	0.9891
cpu-system	mean	0.0255	0.3784	0.6216
cpu-system	10%(max)	0.0044	1.0	0.0
cpu-system	90%(max)	0.0392	0.018	0.982
sys-thermal	mean	0.5296	0.3656	0.6344
sys-thermal	10%(max)	0.305	0.3663	0.6337
sys-thermal	90%(max)	2.745	0.0066	0.9934
sys-interrupt-rate	mean	881.112	0.3966	0.6034
sys-interrupt-rate	10%(max)	116.05	1.0	0.0
sys-interrupt-rate	90%(max)	1044.45	0.0304	0.9696
disk-io-time	mean	0.0001	0.5256	0.4744
disk-io-time	10%(max)	0.0	0.5256	0.4744
disk-io-time	90%(max)	0.0004	0.1046	0.8954

Crosstable Analysis Based on Mean Threshold

	x > Mean	x < Mean	Total
load-15m	28425	38852	67277
memory_used_pct	21846	45431	67277
cpu-user	26997	40280	67277
cpu-system	25456	41821	67277
sys-thermal	24595	42682	67277
sys-interrupt-rate	26685	40592	67277
disk-io-time	35359	31918	67277

Conditional Probability Analysis

Condition	Probability
P(load-15m > (mean) memory_used_pct > (mean))	0.2536
P(load-15m < (mean) memory_used_pct > (mean))	0.0712
P(load-15m > (mean) cpu-user > (mean))	0.2278
P(load-15m < (mean) cpu-user > (mean))	0.1734
P(load-15m > (mean) cpu-system > (mean))	0.2132
P(load-15m < (mean) cpu-system > (mean))	0.1652
P(load-15m > (mean) sys-thermal > (mean))	0.1602
P(load-15m < (mean) sys-thermal > (mean))	0.2053
P(load-15m < 10%(max) sys-thermal < 10%(max))	0.2632
P(load-15m < 10%(max) sys-thermal > 90%(max))	0.0022
P(sys-thermal < 10%(max) load-15m > 90%(max))	0.0065
P(load-15m > 90%(max) sys-thermal < 10%(max))	0.0065
P(sys-thermal > 90%(max) load-15m < 10%(max))	0.0022
P(load-15m > (mean) sys-interrupt-rate > (mean))	0.2289
P(load-15m < (mean) sys-interrupt-rate > (mean))	0.1677
P(load-15m > (mean) disk-io-time > (mean))	0.2539
P(load-15m < (mean) disk-io-time > (mean))	0.2717
P(load-15m > 90%(max) disk-io-time > 90%(max))	0.0028
P(load-15m < 10%(max) disk-io-time < 10%(max))	0.2242
P(load-15m < 10%(max) disk-io-time > 90%(max))	0.0087
P(disk-io-time < 10%(max) load-15m > 90%(max))	0.0032
P(load-15m > 90%(max) disk-io-time < 10%(max))	0.0032
P(disk-io-time > 90%(max) load-15m < 10%(max))	0.0087
P(memory_used_pct > (mean) cpu-user > (mean))	0.2338
P(memory_used_pct < (mean) cpu-user > (mean))	0.1675
P(memory_used_pct > (mean) cpu-system > (mean))	0.2108
P(memory_used_pct < (mean) cpu-system > (mean))	0.1675
P(memory_used_pct > (mean) sys-thermal > (mean))	0.1286
P(memory_used_pct < (mean) sys-thermal > (mean))	0.237
P(memory_used_pct > (mean) sys-interrupt-rate > (mean))	0.2353
P(memory_used_pct < (mean) sys-interrupt-rate > (mean))	0.1614
P(memory_used_pct > (mean) disk-io-time > (mean))	0.2291
P(memory_used_pct < (mean) disk-io-time > (mean))	0.2965
P(cpu-user > (mean) cpu-system > (mean))	0.2344
P(cpu-user < (mean) cpu-system > (mean))	0.1439
P(cpu-user > 90%(max) cpu-system > 90%(max))	0.0038
P(cpu-user > (mean) sys-thermal > (mean))	0.1498
P(cpu-user < (mean) sys-thermal > (mean))	0.2158
P(sys-thermal < 10%(max) cpu-user > 90%(max))	0.0064
P(cpu-user > 90%(max) sys-thermal < 10%(max))	0.0064
P(cpu-user > (mean) sys-interrupt-rate > (mean))	0.2644
P(cpu-user < (mean) sys-interrupt-rate > (mean))	0.1322
P(cpu-user > 90%(max) sys-interrupt-rate > 90%(max))	0.005
P(cpu-user > (mean) disk-io-time > (mean))	0.2412
P(cpu-user < (mean) disk-io-time > (mean))	0.2844
P(cpu-user > 90%(max) disk-io-time > 90%(max))	0.0033
P(disk-io-time < 10%(max) cpu-user > 90%(max))	0.0035
P(cpu-user > 90%(max) disk-io-time < 10%(max))	0.0035
P(cpu-system > (mean) sys-thermal > (mean))	0.1404
P(cpu-system < (mean) sys-thermal > (mean))	0.2251
P(sys-thermal < 10%(max) cpu-system > 90%(max))	0.0111
P(cpu-system > 90%(max) sys-thermal < 10%(max))	0.0111
P(cpu-system > (mean) sys-interrupt-rate > (mean))	0.2572
P(cpu-system < (mean) sys-interrupt-rate > (mean))	0.1394
P(cpu-system > 90%(max) sys-interrupt-rate > 90%(max))	0.0107
P(cpu-system > (mean) disk-io-time > (mean))	0.2241
P(cpu-system < (mean) disk-io-time > (mean))	0.3015
P(cpu-system > 90%(max) disk-io-time > 90%(max))	0.0073
P(disk-io-time < 10%(max) cpu-system > 90%(max))	0.0047
P(cpu-system > 90%(max) disk-io-time < 10%(max))	0.0047
P(sys-thermal > (mean) sys-interrupt-rate > (mean))	0.1498
P(sys-thermal < (mean) sys-interrupt-rate > (mean))	0.2468
P(sys-thermal < 10%(max) sys-interrupt-rate > 90%(max))	0.0176
P(sys-interrupt-rate > 90%(max) sys-thermal < 10%(max))	0.0176
P(sys-thermal > (mean) disk-io-time > (mean))	0.196
P(sys-thermal < (mean) disk-io-time > (mean))	0.3296
P(sys-thermal < 10%(max) disk-io-time < 10%(max))	0.3044
P(sys-thermal < 10%(max) disk-io-time > 90%(max))	0.0637
P(disk-io-time < 10%(max) sys-thermal > 90%(max))	0.003
P(sys-thermal > 90%(max) disk-io-time < 10%(max))	0.003
P(disk-io-time > 90%(max) sys-thermal < 10%(max))	0.0637
P(sys-interrupt-rate > (mean) disk-io-time > (mean))	0.2449
P(sys-interrupt-rate < (mean) disk-io-time > (mean))	0.2807
P(sys-interrupt-rate > 90%(max) disk-io-time > 90%(max))	0.0108
P(disk-io-time < 10%(max) sys-interrupt-rate > 90%(max))	0.0088
P(sys-interrupt-rate > 90%(max) disk-io-time < 10%(max))	0.0088