Threshold-based Probability Estimation

Measurement	Threshold	Threshold_Value	Probability_Larger	Probability_Smaller
load-15m	mean	0.0308	0.3402	0.6598
load-15m	10%(max)	0.017	0.4308	0.5692
load-15m	90%(max)	0.153	0.0149	0.9851
memory_used_pct	mean	12.133	0.4031	0.5969
memory_used_pct	10%(max)	2.1438	1.0	0.0
memory_used_pct	90%(max)	19.2946	0.0006	0.9994
cpu-user	mean	0.0154	0.4223	0.5777
cpu-user	10%(max)	0.0032	1.0	0.0
cpu-user	90%(max)	0.0288	0.0057	0.9943
cpu-system	mean	0.0101	0.3466	0.6534
cpu-system	10%(max)	0.0023	1.0	0.0
cpu-system	90%(max)	0.0211	0.0103	0.9897
sys-thermal	mean	1.232	0.6715	0.3285
sys-thermal	10%(max)	0.355	0.6715	0.3285
sys-thermal	90%(max)	3.195	0.0366	0.9634
sys-interrupt-rate	mean	971.3285	0.3998	0.6002
sys-interrupt-rate	10%(max)	119.555	1.0	0.0
sys-interrupt-rate	90%(max)	1075.995	0.0375	0.9625
disk-io-time	mean	0.0012	0.5535	0.4465
disk-io-time	10%(max)	0.0003	0.8755	0.1245
disk-io-time	90%(max)	0.0027	0.0129	0.9871

Crosstable Analysis Based on Mean Threshold

	x > Mean	x < Mean	Total
load-15m	23206	45007	68213
memory_used_pct	27496	40717	68213
cpu-user	28807	39406	68213
cpu-system	23644	44569	68213
sys-thermal	45806	22407	68213
sys-interrupt-rate	27269	40944	68213
disk-io-time	37755	30458	68213

Conditional Probability Analysis

Condition	Probability
P(load-15m > (mean) | memory_used_pct > (mean))	0.205
P(load-15m < (mean) | memory_used_pct > (mean))	0.1981
P(load-15m > (mean) | cpu-user > (mean))	0.1818
P(load-15m < (mean) | cpu-user > (mean))	0.2406
P(load-15m < 10%(max) | cpu-user > 90%(max))	0.002
P(cpu-user > 90%(max) | load-15m < 10%(max))	0.002
P(load-15m > (mean) | cpu-system > (mean))	0.1528
P(load-15m < (mean) | cpu-system > (mean))	0.1938
P(load-15m < 10%(max) | cpu-system > 90%(max))	0.0037
P(cpu-system > 90%(max) | load-15m < 10%(max))	0.0037
P(load-15m > (mean) | sys-thermal > (mean))	0.2281
P(load-15m < (mean) | sys-thermal > (mean))	0.4434
P(load-15m < 10%(max) | sys-thermal < 10%(max))	0.1865
P(load-15m < 10%(max) | sys-thermal > 90%(max))	0.0216
P(sys-thermal < 10%(max) | load-15m > 90%(max))	0.0049
P(load-15m > 90%(max) | sys-thermal < 10%(max))	0.0049
P(sys-thermal > 90%(max) | load-15m < 10%(max))	0.0216
P(load-15m > (mean) | sys-interrupt-rate > (mean))	0.1788
P(load-15m < (mean) | sys-interrupt-rate > (mean))	0.221
P(load-15m < 10%(max) | sys-interrupt-rate > 90%(max))	0.0124
P(sys-interrupt-rate > 90%(max) | load-15m < 10%(max))	0.0124
P(load-15m > (mean) | disk-io-time > (mean))	0.227
P(load-15m < (mean) | disk-io-time > (mean))	0.3265
P(load-15m < 10%(max) | disk-io-time < 10%(max))	0.0899
P(load-15m < 10%(max) | disk-io-time > 90%(max))	0.004
P(disk-io-time < 10%(max) | load-15m > 90%(max))	0.001
P(load-15m > 90%(max) | disk-io-time < 10%(max))	0.001
P(disk-io-time > 90%(max) | load-15m < 10%(max))	0.004
P(memory_used_pct > (mean) | cpu-user > (mean))	0.2893
P(memory_used_pct < (mean) | cpu-user > (mean))	0.133
P(memory_used_pct > (mean) | cpu-system > (mean))	0.2551
P(memory_used_pct < (mean) | cpu-system > (mean))	0.0915
P(memory_used_pct > (mean) | sys-thermal > (mean))	0.2701
P(memory_used_pct < (mean) | sys-thermal > (mean))	0.4014
P(memory_used_pct > (mean) | sys-interrupt-rate > (mean))	0.2951
P(memory_used_pct < (mean) | sys-interrupt-rate > (mean))	0.1046
P(memory_used_pct > (mean) | disk-io-time > (mean))	0.3462
P(memory_used_pct < (mean) | disk-io-time > (mean))	0.2073
P(cpu-user > (mean) | cpu-system > (mean))	0.2334
P(cpu-user < (mean) | cpu-system > (mean))	0.1133
P(cpu-user > 90%(max) | cpu-system > 90%(max))	0.0011
P(cpu-user > (mean) | sys-thermal > (mean))	0.2845
P(cpu-user < (mean) | sys-thermal > (mean))	0.387
P(sys-thermal < 10%(max) | cpu-user > 90%(max))	0.0019
P(cpu-user > 90%(max) | sys-thermal < 10%(max))	0.0019
P(cpu-user > (mean) | sys-interrupt-rate > (mean))	0.2804
P(cpu-user < (mean) | sys-interrupt-rate > (mean))	0.1194
P(cpu-user > 90%(max) | sys-interrupt-rate > 90%(max))	0.0026
P(cpu-user > (mean) | disk-io-time > (mean))	0.3194
P(cpu-user < (mean) | disk-io-time > (mean))	0.234
P(cpu-system > (mean) | sys-thermal > (mean))	0.2335
P(cpu-system < (mean) | sys-thermal > (mean))	0.4381
P(sys-thermal < 10%(max) | cpu-system > 90%(max))	0.0035
P(cpu-system > 90%(max) | sys-thermal < 10%(max))	0.0035
P(cpu-system > (mean) | sys-interrupt-rate > (mean))	0.2461
P(cpu-system < (mean) | sys-interrupt-rate > (mean))	0.1537
P(cpu-system > 90%(max) | sys-interrupt-rate > 90%(max))	0.0057
P(cpu-system > (mean) | disk-io-time > (mean))	0.2675
P(cpu-system < (mean) | disk-io-time > (mean))	0.286
P(cpu-system > 90%(max) | disk-io-time > 90%(max))	0.0014
P(sys-thermal > (mean) | sys-interrupt-rate > (mean))	0.2682
P(sys-thermal < (mean) | sys-interrupt-rate > (mean))	0.1316
P(sys-thermal < 10%(max) | sys-interrupt-rate > 90%(max))	0.0128
P(sys-interrupt-rate > 90%(max) | sys-thermal < 10%(max))	0.0128
P(sys-thermal > (mean) | disk-io-time > (mean))	0.3715
P(sys-thermal < (mean) | disk-io-time > (mean))	0.182
P(sys-thermal < 10%(max) | disk-io-time < 10%(max))	0.0417
P(sys-thermal < 10%(max) | disk-io-time > 90%(max))	0.0044
P(disk-io-time < 10%(max) | sys-thermal > 90%(max))	0.0051
P(sys-thermal > 90%(max) | disk-io-time < 10%(max))	0.0051
P(disk-io-time > 90%(max) | sys-thermal < 10%(max))	0.0044
P(sys-interrupt-rate > (mean) | disk-io-time > (mean))	0.3305
P(sys-interrupt-rate < (mean) | disk-io-time > (mean))	0.223
P(sys-interrupt-rate > 90%(max) | disk-io-time > 90%(max))	0.0048