

Threshold-based Probability Estimation

Measurement	Threshold	Threshold_Value	Probability_Larger	Probability_Smaller
load-15m	mean	0.0844	0.4465	0.5535
load-15m	10%(max)	0.035	0.6688	0.3312
load-15m	90%(max)	0.315	0.0046	0.9954
memory_used_pct	mean	11.4093	0.3449	0.6551
memory_used_pct	10%(max)	1.8306	1.0	0.0
memory_used_pct	90%(max)	16.4758	0.0023	0.9977
cpu-user	mean	0.041	0.3777	0.6223
cpu-user	10%(max)	0.0124	1.0	0.0
cpu-user	90%(max)	0.1116	0.0108	0.9892
cpu-system	mean	0.0277	0.3549	0.6451
cpu-system	10%(max)	0.0078	1.0	0.0
cpu-system	90%(max)	0.0698	0.0114	0.9886
sys-thermal	mean	0.9947	0.627	0.373
sys-thermal	10%(max)	0.315	0.6277	0.3723
sys-thermal	90%(max)	2.835	0.0306	0.9694
sys-interrupt-rate	mean	1104.6255	0.3989	0.6011
sys-interrupt-rate	10%(max)	150.815	1.0	0.0
sys-interrupt-rate	90%(max)	1357.335	0.0213	0.9787
disk-io-time	mean	0.0055	0.5036	0.4964
disk-io-time	10%(max)	0.0014	0.8725	0.1275
disk-io-time	90%(max)	0.0124	0.0113	0.9887

Crosstable Analysis Based on Mean Threshold

	x > Mean	x < Mean	Total
load-15m	30214	37449	67663
memory_used_pct	23339	44324	67663
cpu-user	25553	42110	67663
cpu-system	24012	43651	67663
sys-thermal	42428	25235	67663
sys-interrupt-rate	26990	40673	67663
disk-io-time	34073	33590	67663

Conditional Probability Analysis

Condition	Probability
P(load-15m > (mean) memory_used_pct > (mean))	0.3129
P(load-15m < (mean) memory_used_pct > (mean))	0.032
P(load-15m > (mean) cpu-user > (mean))	0.2307
P(load-15m < (mean) cpu-user > (mean))	0.147
P(load-15m > (mean) cpu-system > (mean))	0.2226
P(load-15m < (mean) cpu-system > (mean))	0.1322
P(load-15m > (mean) sys-thermal > (mean))	0.2838
P(load-15m < (mean) sys-thermal > (mean))	0.3432
P(load-15m < 10%(max) sys-thermal < 10%(max))	0.1257
P(load-15m < 10%(max) sys-thermal > 90%(max))	0.0077
P(sys-thermal < 10%(max) load-15m > 90%(max))	0.0016
P(load-15m > 90%(max) sys-thermal < 10%(max))	0.0016
P(sys-thermal > 90%(max) load-15m < 10%(max))	0.0077
P(load-15m > (mean) sys-interrupt-rate > (mean))	0.2484
P(load-15m < (mean) sys-interrupt-rate > (mean))	0.1505
P(load-15m > (mean) disk-io-time > (mean))	0.2832
P(load-15m < (mean) disk-io-time > (mean))	0.2204
P(load-15m < 10%(max) disk-io-time < 10%(max))	0.0694
P(load-15m < 10%(max) disk-io-time > 90%(max))	0.0018
P(disk-io-time > 90%(max) load-15m < 10%(max))	0.0018
P(memory_used_pct > (mean) cpu-user > (mean))	0.212
P(memory_used_pct < (mean) cpu-user > (mean))	0.1657
P(memory_used_pct > (mean) cpu-system > (mean))	0.2076
P(memory_used_pct < (mean) cpu-system > (mean))	0.1473
P(memory_used_pct > (mean) sys-thermal > (mean))	0.2215
P(memory_used_pct < (mean) sys-thermal > (mean))	0.4056
P(memory_used_pct > (mean) sys-interrupt-rate > (mean))	0.2306
P(memory_used_pct < (mean) sys-interrupt-rate > (mean))	0.1683
P(memory_used_pct > 90%(max) sys-interrupt-rate > 90%(max))	0.0011
P(memory_used_pct > (mean) disk-io-time > (mean))	0.2508
P(memory_used_pct < (mean) disk-io-time > (mean))	0.2528
P(cpu-user > (mean) cpu-system > (mean))	0.2966
P(cpu-user < (mean) cpu-system > (mean))	0.0583
P(cpu-user > 90%(max) cpu-system > 90%(max))	0.0039
P(cpu-user > (mean) sys-thermal > (mean))	0.2395
P(cpu-user < (mean) sys-thermal > (mean))	0.3875
P(cpu-user > 90%(max) sys-thermal > 90%(max))	0.001
P(sys-thermal < 10%(max) cpu-user > 90%(max))	0.003
P(cpu-user > 90%(max) sys-thermal < 10%(max))	0.003
P(cpu-user > (mean) sys-interrupt-rate > (mean))	0.2591
P(cpu-user < (mean) sys-interrupt-rate > (mean))	0.1398
P(cpu-user > 90%(max) sys-interrupt-rate > 90%(max))	0.0017
P(cpu-user > (mean) disk-io-time > (mean))	0.2259
P(cpu-user < (mean) disk-io-time > (mean))	0.2777
P(cpu-system > (mean) sys-thermal > (mean))	0.2256
P(cpu-system < (mean) sys-thermal > (mean))	0.4014
P(cpu-system > 90%(max) sys-thermal > 90%(max))	0.001
P(sys-thermal < 10%(max) cpu-system > 90%(max))	0.0037
P(cpu-system > 90%(max) sys-thermal < 10%(max))	0.0037
P(cpu-system > (mean) sys-interrupt-rate > (mean))	0.2553
P(cpu-system < (mean) sys-interrupt-rate > (mean))	0.1436
P(cpu-system > 90%(max) sys-interrupt-rate > 90%(max))	0.0035
P(cpu-system > (mean) disk-io-time > (mean))	0.2155
P(cpu-system < (mean) disk-io-time > (mean))	0.2881
P(sys-thermal > (mean) sys-interrupt-rate > (mean))	0.2559
P(sys-thermal < (mean) sys-interrupt-rate > (mean))	0.143
P(sys-thermal > 90%(max) sys-interrupt-rate > 90%(max))	0.0012
P(sys-thermal < 10%(max) sys-interrupt-rate > 90%(max))	0.0064
P(sys-interrupt-rate > 90%(max) sys-thermal < 10%(max))	0.0064
P(sys-thermal > (mean) disk-io-time > (mean))	0.3146
P(sys-thermal < (mean) disk-io-time > (mean))	0.189
P(sys-thermal < 10%(max) disk-io-time < 10%(max))	0.046
P(sys-thermal < 10%(max) disk-io-time > 90%(max))	0.0044
P(disk-io-time < 10%(max) sys-thermal > 90%(max))	0.0038
P(sys-thermal > 90%(max) disk-io-time < 10%(max))	0.0038
P(disk-io-time > 90%(max) sys-thermal < 10%(max))	0.0044
P(sys-interrupt-rate > (mean) disk-io-time > (mean))	0.2529
P(sys-interrupt-rate < (mean) disk-io-time > (mean))	0.2507