Threshold-based Probability Estimation

Measurement	Threshold	Threshold_Value	Probability_Larger	Probability_Smaller
load-15m	mean	4.9127	0.36	0.64
load-15m	10%(max)	3.7	0.3827	0.6173
load-15m	90%(max)	33.3	0.0024	0.9976
memory_used_pct	mean	11.397	0.2555	0.7445
memory_used_pct	10%(max)	2.0037	1.0	0.0
memory_used_pct	90%(max)	18.0331	0.0004	0.9996
cpu-user	mean	0.0086	0.2194	0.7806
cpu-user	10%(max)	0.0066	0.3771	0.6229
cpu-user	90%(max)	0.0594	0.0033	0.9967
cpu-system	mean	0.0039	0.2798	0.7202
cpu-system	10%(max)	0.0029	0.4895	0.5105
cpu-system	90%(max)	0.0265	0.0041	0.9959
sys-thermal	mean	0.8056	0.5251	0.4749
sys-thermal	10%(max)	0.34	0.5253	0.4747
sys-thermal	90%(max)	3.06	0.0005	0.9995
sys-interrupt-rate	mean	974.787	0.3752	0.6248
sys-interrupt-rate	10%(max)	123.955	1.0	0.0
sys-interrupt-rate	90%(max)	1115.595	0.0134	0.9866
disk-io-time	mean	0.0021	0.242	0.758
disk-io-time	10%(max)	0.0017	0.2631	0.7369
disk-io-time	90%(max)	0.0149	0.0033	0.9967

Crosstable Analysis Based on Mean Threshold

	x > Mean	x < Mean	Total
load-15m	22433	39887	62320
memory_used_pct	15925	46395	62320
cpu-user	13674	48646	62320
cpu-system	17440	44880	62320
sys-thermal	32727	29593	62320
sys-interrupt-rate	23383	38937	62320
disk-io-time	15081	47239	62320

Conditional Probability Analysis

Condition	Probability
P(load-15m > (mean) | memory_used_pct > (mean))	0.2219
P(load-15m < (mean) | memory_used_pct > (mean))	0.0336
P(load-15m > (mean) | cpu-user > (mean))	0.1874
P(load-15m < (mean) | cpu-user > (mean))	0.032
P(load-15m < 10%(max) | cpu-user < 10%(max))	0.4777
P(load-15m > (mean) | cpu-system > (mean))	0.194
P(load-15m < (mean) | cpu-system > (mean))	0.0859
P(load-15m < 10%(max) | cpu-system < 10%(max))	0.3851
P(load-15m > (mean) | sys-thermal > (mean))	0.196
P(load-15m < (mean) | sys-thermal > (mean))	0.3292
P(load-15m < 10%(max) | sys-thermal < 10%(max))	0.2997
P(sys-thermal < 10%(max) | load-15m > 90%(max))	0.001
P(load-15m > 90%(max) | sys-thermal < 10%(max))	0.001
P(load-15m > (mean) | sys-interrupt-rate > (mean))	0.218
P(load-15m < (mean) | sys-interrupt-rate > (mean))	0.1572
P(load-15m > (mean) | disk-io-time > (mean))	0.208
P(load-15m < (mean) | disk-io-time > (mean))	0.034
P(load-15m < 10%(max) | disk-io-time < 10%(max))	0.5707
P(memory_used_pct > (mean) | cpu-user > (mean))	0.1898
P(memory_used_pct < (mean) | cpu-user > (mean))	0.0297
P(memory_used_pct > (mean) | cpu-system > (mean))	0.1884
P(memory_used_pct < (mean) | cpu-system > (mean))	0.0914
P(memory_used_pct > (mean) | sys-thermal > (mean))	0.1418
P(memory_used_pct < (mean) | sys-thermal > (mean))	0.3833
P(memory_used_pct > (mean) | sys-interrupt-rate > (mean))	0.1938
P(memory_used_pct < (mean) | sys-interrupt-rate > (mean))	0.1814
P(memory_used_pct > (mean) | disk-io-time > (mean))	0.2074
P(memory_used_pct < (mean) | disk-io-time > (mean))	0.0346
P(cpu-user > (mean) | cpu-system > (mean))	0.1756
P(cpu-user < (mean) | cpu-system > (mean))	0.1042
P(cpu-user < 10%(max) | cpu-system < 10%(max))	0.4185
P(cpu-user > (mean) | sys-thermal > (mean))	0.1201
P(cpu-user < (mean) | sys-thermal > (mean))	0.405
P(cpu-user < 10%(max) | sys-thermal < 10%(max))	0.2966
P(sys-thermal < 10%(max) | cpu-user > 90%(max))	0.0015
P(cpu-user > 90%(max) | sys-thermal < 10%(max))	0.0015
P(cpu-user > (mean) | sys-interrupt-rate > (mean))	0.1862
P(cpu-user < (mean) | sys-interrupt-rate > (mean))	0.189
P(cpu-user > 90%(max) | sys-interrupt-rate > 90%(max))	0.0014
P(cpu-user > (mean) | disk-io-time > (mean))	0.184
P(cpu-user < (mean) | disk-io-time > (mean))	0.058
P(cpu-user < 10%(max) | disk-io-time < 10%(max))	0.5756
P(cpu-system > (mean) | sys-thermal > (mean))	0.1498
P(cpu-system < (mean) | sys-thermal > (mean))	0.3753
P(cpu-system < 10%(max) | sys-thermal < 10%(max))	0.2418
P(sys-thermal < 10%(max) | cpu-system > 90%(max))	0.0015
P(cpu-system > 90%(max) | sys-thermal < 10%(max))	0.0015
P(cpu-system > (mean) | sys-interrupt-rate > (mean))	0.2138
P(cpu-system < (mean) | sys-interrupt-rate > (mean))	0.1614
P(cpu-system > 90%(max) | sys-interrupt-rate > 90%(max))	0.0021
P(cpu-system > (mean) | disk-io-time > (mean))	0.1814
P(cpu-system < (mean) | disk-io-time > (mean))	0.0606
P(cpu-system < 10%(max) | disk-io-time < 10%(max))	0.4643
P(sys-thermal > (mean) | sys-interrupt-rate > (mean))	0.2012
P(sys-thermal < (mean) | sys-interrupt-rate > (mean))	0.174
P(sys-thermal < 10%(max) | sys-interrupt-rate > 90%(max))	0.0051
P(sys-interrupt-rate > 90%(max) | sys-thermal < 10%(max))	0.0051
P(sys-thermal > (mean) | disk-io-time > (mean))	0.1347
P(sys-thermal < (mean) | disk-io-time > (mean))	0.1073
P(sys-thermal < 10%(max) | disk-io-time < 10%(max))	0.3577
P(sys-thermal < 10%(max) | disk-io-time > 90%(max))	0.0014
P(disk-io-time > 90%(max) | sys-thermal < 10%(max))	0.0014
P(sys-interrupt-rate > (mean) | disk-io-time > (mean))	0.1949
P(sys-interrupt-rate < (mean) | disk-io-time > (mean))	0.0471