Detailed results of predicting performance regression with different performance counters. Improvement are calculated by comparing with a random classifier. Bold values highlight the best predictors.

Hadoop																												
	Random Forest					LR					SVM					XG-50					XG-100					XG-500				
	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC
	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value
Response time	0.46	411%	0.75	29%	0.86	0.25	178%	0.37	-36%	0.69	0.35	289%	0.74	28%	0.85	0.51	467%	0.73	26%	0.88	0.52	478%	0.74	28%	**0.89**	0.51	467%	0.72	24%	0.88
Cpu	0.43	514%	0.68	79%	**0.86**	0.23	229%	0.38	0%	0.59	0.44	529%	0.64	68%	0.77	0.42	500%	0.74	95%	0.73	0.41	486%	0.81	113%	0.71	0.41	486%	0.77	103%	0.70
Memory	0.49	717%	0.65	27%	**0.87**	0.25	317%	0.34	-33%	0.70	0.41	583%	0.65	27%	0.83	0.39	550%	0.68	33%	0.79	0.37	517%	0.61	20%	0.77	0.37	517%	0.62	22%	0.78
I/O Read	0.48	500%	0.65	38%	0.80	0.22	175%	0.22	-53%	0.59	0.36	350%	0.64	36%	**0.81**	0.33	313%	0.66	40%	0.78	0.39	388%	0.65	38%	0.75	0.37	363%	0.65	38%	0.71
I/O Write	0.40	471%	0.68	42%	**0.78**	0.27	286%	0.41	-15%	0.56	0.36	414%	0.68	42%	0.71	0.34	386%	0.61	27%	0.73	0.37	429%	0.55	15%	0.74	0.36	414%	0.69	44%	0.76
Average	0.45	511%	0.68	41%	**0.83**	0.24	230%	0.34	-29%	0.63	0.38	419%	0.67	38%	0.79	0.40	438%	0.68	41%	0.78	0.41	457%	0.67	39%	0.77	0.40	446%	0.69	43%	0.77

Cassandra																												
	Random Forest					LR					SVM					XG-50					XG-100					XG-500				
	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC
	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value
Response time	0.61	1425%	0.61	7%	**0.78**	0.26	550%	0.32	-44%	0.67	0.42	950%	0.67	18%	0.72	0.56	1300%	0.65	14%	0.69	0.52	1200%	0.71	25%	0.70	0.51	1175%	0.71	25%	0.68
Cpu	0.30	650%	0.65	81%	**0.84**	0.12	200%	0.14	-61%	0.70	0.37	825%	0.72	100%	0.64	0.28	600%	0.66	83%	0.60	0.31	675%	0.67	86%	0.61	0.31	675%	0.67	86%	0.62
Memory	0.32	700%	0.84	75%	**0.91**	0.14	250%	0.28	-42%	0.75	0.34	750%	0.75	56%	0.76	0.34	750%	0.71	48%	0.88	0.33	725%	0.65	35%	0.87	0.34	750%	0.65	35%	0.84
I/O Read	0.45	650%	0.62	24%	**0.83**	0.11	83%	0.24	-52%	0.57	0.41	583%	0.64	28%	0.68	0.41	583%	0.65	30%	0.74	0.39	550%	0.68	36%	0.73	0.40	567%	0.68	36%	0.70
I/O Write	0.25	1150%	0.67	18%	**0.71**	0.14	600%	0.18	-68%	0.57	0.28	1300%	0.67	18%	0.67	0.31	1450%	0.63	11%	0.67	0.27	1250%	0.68	19%	0.66	0.29	1350%	0.67	18%	0.62
Average	0.39	865%	0.68	37%	**0.81**	0.15	285%	0.23	-53%	0.65	0.36	810%	0.69	39%	0.69	0.38	850%	0.66	33%	0.72	0.36	810%	0.68	37%	0.71	0.37	825%	0.68	36%	0.69

Openjpa																												
	Random Forest					LR					SVM					XG-50					XG-100					XG-500				
	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC	Precision		Recall		AUC
	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value	Value	Improv.	Value	Improv.	Value
Response time	0.26	333%	0.86	76%	**0.90**	0.29	383%	0.46	-6%	0.64	0.27	350%	0.78	59%	0.54	0.28	367%	0.74	51%	0.86	0.27	350%	0.74	51%	0.84	0.27	350%	0.74	51%	0.78
Cpu	0.38	81%	0.76	43%	**0.78**	0.37	76%	0.53	0%	0.64	0.41	95%	0.64	21%	0.77	0.42	100%	0.73	38%	0.69	0.41	95%	0.72	36%	0.69	0.41	95%	0.72	36%	0.65
Memory	0.27	200%	0.78	56%	**0.71**	0.27	200%	0.30	-40%	0.54	0.25	178%	0.65	30%	0.69	0.33	267%	0.71	42%	0.69	0.31	244%	0.73	46%	0.69	0.30	233%	0.74	48%	0.68
I/O Read	0.36	64%	0.75	39%	0.75	0.35	59%	0.51	-6%	0.63	0.37	68%	0.76	41%	0.74	0.34	55%	0.80	48%	0.76	0.35	59%	0.81	50%	**0.78**	0.39	77%	0.80	48%	0.75
I/O Write	0.33	14%	0.78	50%	**0.65**	0.33	14%	0.52	0%	0.53	0.31	7%	0.82	58%	0.62	0.26	-10%	0.76	46%	0.54	0.26	-10%	0.76	46%	0.54	0.26	-10%	0.76	46%	0.55
Average	0.32	84%	0.79	52%	**0.76**	0.32	85%	0.46	-10%	0.60	0.32	85%	0.73	41%	0.67	0.33	87%	0.75	45%	0.71	0.32	84%	0.752	46%	0.71	0.33	87%	0.75	46%	0.68