TCP Search Server Benchmark Report
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Performance Summary
ALL PERFORMANCE REQUIREMENTS MET
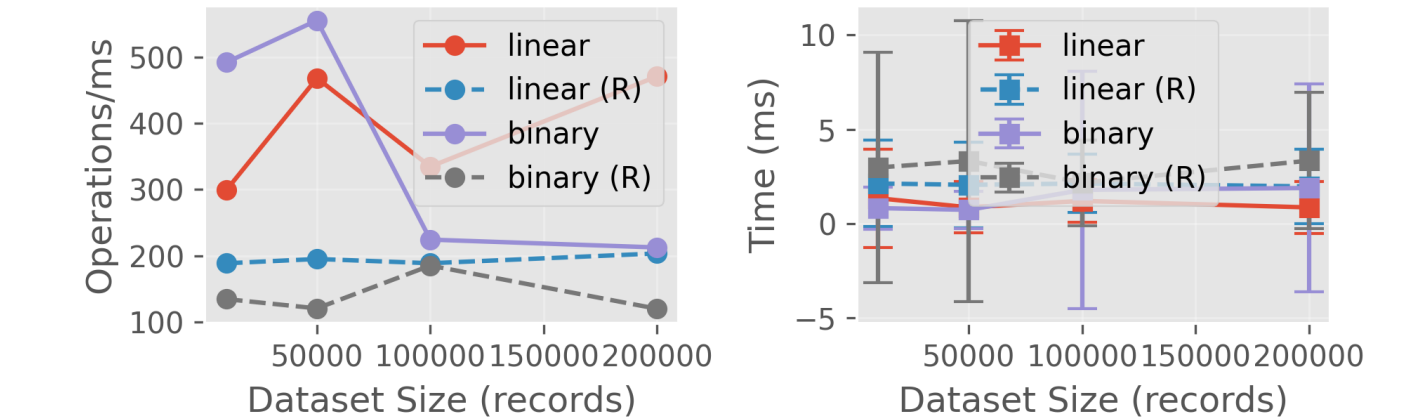
TCP Search Server Benchmark Report
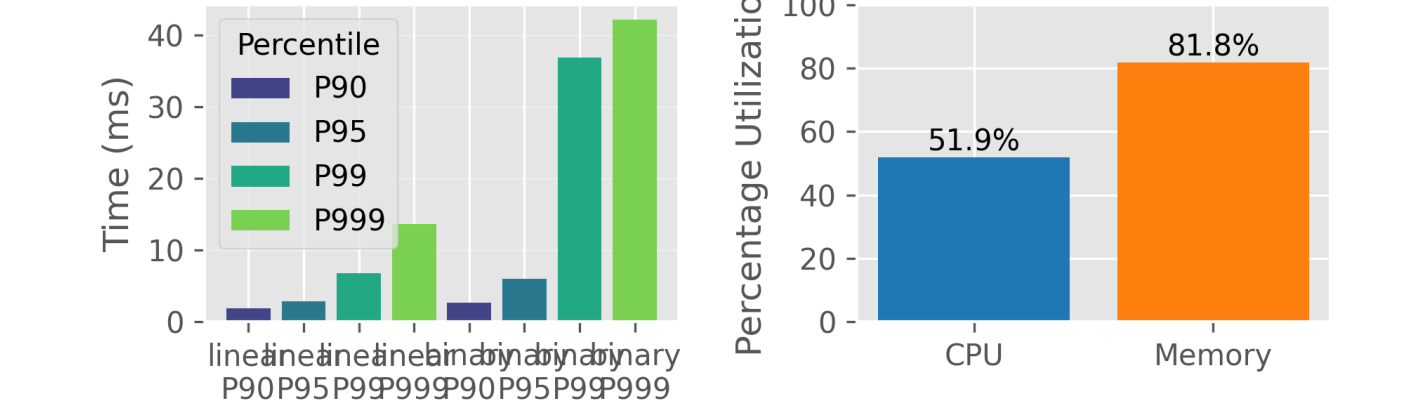**Detailed Validation Results**

Test Case	Status	Details
LINEAR (reread_off)	PASS	Average: 0.85ms <= 100ms, 99th Percentile: 6.79ms <= 150ms, 99.9th Percentile: 13.66ms <= 200ms
LINEAR (reread_on)	PASS	Average: 1.97ms <= 500ms, 99th Percentile: 8.71ms <= 750ms, 99.9th Percentile: 12.80ms <= 1000ms
BINARY (reread_off)	PASS	Average: 1.88ms <= 15ms, 99th Percentile: 36.82ms <= 50ms, 99.9th Percentile: 42.15ms <= 70ms
BINARY (reread_on)	PASS	Average: 3.33ms <= 50ms, 99th Percentile: 18.80ms <= 100ms, 99.9th Percentile: 38.67ms <= 150ms

TCP Search Server Benchmark Report
Performance Analysis

Throughput (Operations per Millisecond)

Average Latency with Std Dev

Percentile Performance (200k records)

System Resource Utilization

TCP Search Server Benchmark Report
Raw Benchmark Data

Algorithm	Reread	FileSize	AvgTime	P99	P999	Samples
linear	False	10000	1.34	15.04	23.01	400
linear	True	10000	2.12	9.88	14.52	400
binary	False	10000	0.81	6.20	8.02	400
binary	True	10000	2.97	41.12	56.26	400
linear	False	50000	0.85	7.68	12.88	400
linear	True	50000	2.05	11.49	13.07	400
binary	False	50000	0.72	5.76	6.91	400
binary	True	50000	3.31	45.76	78.58	400
linear	False	100000	1.20	4.92	6.72	400
linear	True	100000	2.12	7.75	10.59	400
binary	False	100000	1.78	43.40	61.47	400
binary	True	100000	2.16	9.94	14.60	400
linear	False	200000	0.85	6.79	13.66	400
linear	True	200000	1.97	8.71	12.80	400
binary	False	200000	1.88	36.82	42.15	400
binary	True	200000	3.33	18.80	38.67	400