

## Results

### Descriptives

Descriptives

	Method	Prediction time (s)
<b>Mean</b>	<b>Base</b>	2.458
	<b>Chi2</b>	2.423
	<b>GA</b>	2.307
	<b>MI</b>	2.365
	<b>PCA</b>	2.520
	<b>RF-PFI</b>	2.235
<b>95% CI mean lower bound</b>	<b>Base</b>	2.442
	<b>Chi2</b>	2.417
	<b>GA</b>	2.294
	<b>MI</b>	2.357
	<b>PCA</b>	2.510
	<b>RF-PFI</b>	2.230
<b>95% CI mean upper bound</b>	<b>Base</b>	2.474
	<b>Chi2</b>	2.429
	<b>GA</b>	2.319
	<b>MI</b>	2.373
	<b>PCA</b>	2.531
	<b>RF-PFI</b>	2.239
<b>Median</b>	<b>Base</b>	2.458
	<b>Chi2</b>	2.426
	<b>GA</b>	2.304
	<b>MI</b>	2.362
	<b>PCA</b>	2.522
	<b>RF-PFI</b>	2.235
<b>Standard deviation</b>	<b>Base</b>	0.022
	<b>Chi2</b>	0.009
	<b>GA</b>	0.018
	<b>MI</b>	0.011
	<b>PCA</b>	0.015
	<b>RF-PFI</b>	0.006

*Note.* The CI of the mean assumes sample means follow a t-distribution with N - 1 degrees of freedom

# One-Way ANOVA

One-Way ANOVA (Welch's)

	F	df1	df2	p
Prediction time (s)	1093.676	5	24.327	8.63e-28

## Assumption Checks

Normality Test (Shapiro-Wilk)

	W	p
Prediction time (s)	0.991	0.934

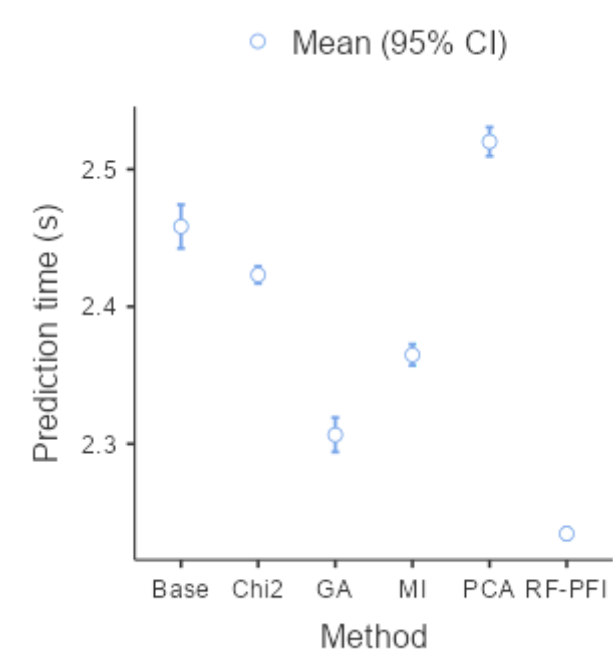
Note. A low p-value suggests a violation of the assumption of normality

Homogeneity of Variances Test (Levene's)

	F	df1	df2	p
Prediction time (s)	4.779	5	54	0.00109

## Plots

Prediction time (s)



## Post Hoc Tests

Games-Howell Post-Hoc Test – Prediction time (s)

		Base	Chi2	GA	MI	PCA	RF-PFI
Base	Mean difference	—	0.035	0.152	0.094	-0.062	0.224
	p-value	—	0.00588	5.23e-11	2.61e-7	2.43e -5	1.83e-10
Chi2	Mean difference		—	0.116	0.058	-0.097	0.189
	p-value		—	9.08e-10	2.35e-9	3.15e-10	0.00
GA	Mean difference			—	-0.058	-0.214	0.072
	p-value			—	2.69e-6	9.77e-14	1.08e -6
MI	Mean difference				—	-0.155	0.130
	p-value				—	2.28e-13	1.29e-12
PCA	Mean difference					—	0.286
	p-value					—	0.00
RF-PFI	Mean difference						—
	p-value						—

# Results

## Descriptives

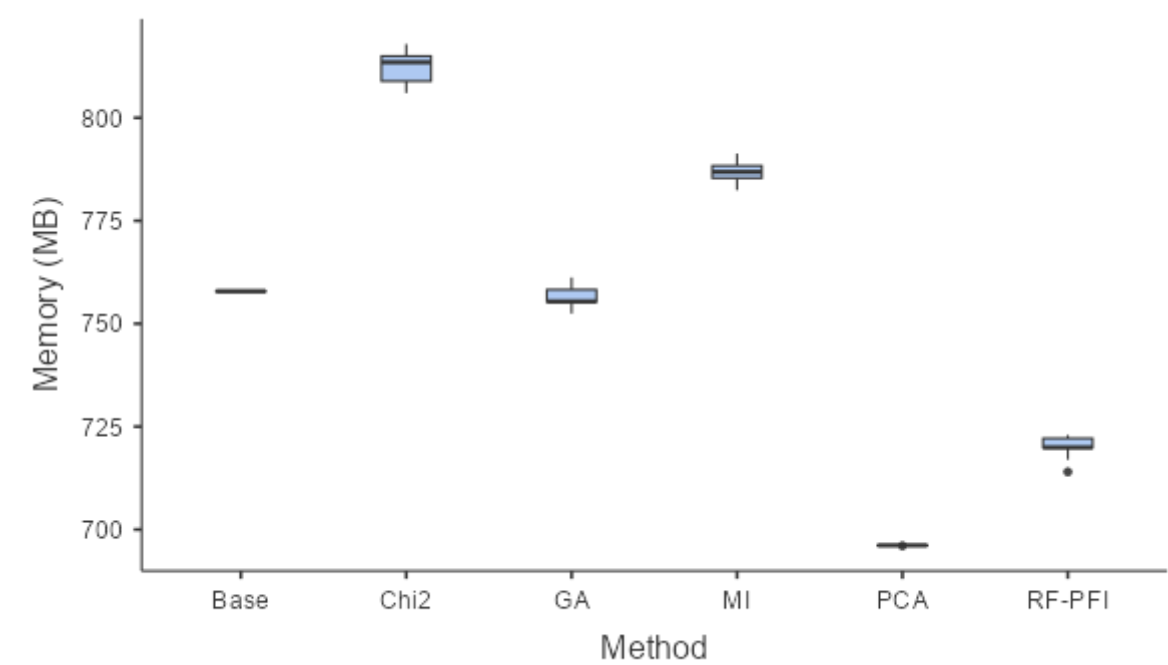
Descriptives

	Method	Memory (MB)
Mean	Base	757.880
	Chi2	811.995
	GA	756.521
	MI	786.866
	PCA	696.130
	RF-PFI	719.929
95% CI mean lower bound	Base	757.838
	Chi2	808.977
	GA	754.754
	MI	785.066
	PCA	696.101
	RF-PFI	717.931
95% CI mean upper bound	Base	757.921
	Chi2	815.012
	GA	758.287
	MI	788.666
	PCA	696.159
	RF-PFI	721.926
Median	Base	757.902
	Chi2	813.506
	GA	755.410
	MI	786.857
	PCA	696.141
	RF-PFI	719.941
Standard deviation	Base	0.058
	Chi2	4.218
	GA	2.469
	MI	2.516
	PCA	0.041
	RF-PFI	2.792

*Note.* The CI of the mean assumes sample means follow a t-distribution with N - 1 degrees of freedom

Plots

Memory (MB)



One-Way ANOVA (Non-parametric)

Kruskal-Wallis

	$\chi^2$	df	p
Memory (MB)	55.806	5	8.91e-11

Dwass-Steel-Critchlow-Fligner pairwise comparisons

Pairwise comparisons - Memory (MB)

		W	p
Base	Chi2	5.349	0.00215
Base	GA	-1.070	0.97463
Base	MI	5.349	0.00215
Base	PCA	-5.349	0.00215
Base	RF-PFI	-5.349	0.00215
Chi2	GA	-5.345	0.00218
Chi2	MI	-5.345	0.00218
Chi2	PCA	-5.345	0.00218
Chi2	RF-PFI	-5.345	0.00218
GA	MI	5.345	0.00218
GA	PCA	-5.345	0.00218
GA	RF-PFI	-5.345	0.00218
MI	PCA	-5.345	0.00218
MI	RF-PFI	-5.345	0.00218
PCA	RF-PFI	5.345	0.00218

# Results

## Descriptives

Descriptives

	Method	Prediction time (s)
Mean	Base	6.938
	Chi2	6.610
	GA	6.572
	MI	6.643
	RF-PFI	6.164
95% CI mean lower bound	Base	6.833
	Chi2	6.547
	GA	6.453
	MI	6.542
	RF-PFI	6.084
95% CI mean upper bound	Base	7.043
	Chi2	6.674
	GA	6.691
	MI	6.743
	RF-PFI	6.244
Median	Base	6.959
	Chi2	6.632
	GA	6.606
	MI	6.617
	RF-PFI	6.139
Standard deviation	Base	0.147
	Chi2	0.089
	GA	0.166
	MI	0.140
	RF-PFI	0.112

*Note.* The CI of the mean assumes sample means follow a t-distribution with N - 1 degrees of freedom

## One-Way ANOVA

One-Way ANOVA (Fisher's)

	F	df1	df2	p
Prediction time (s)	42.869	4	45	8.42e-15

Assumption Checks

Normality Test (Shapiro-Wilk)

	W	p
Prediction time (s)	0.978	0.476

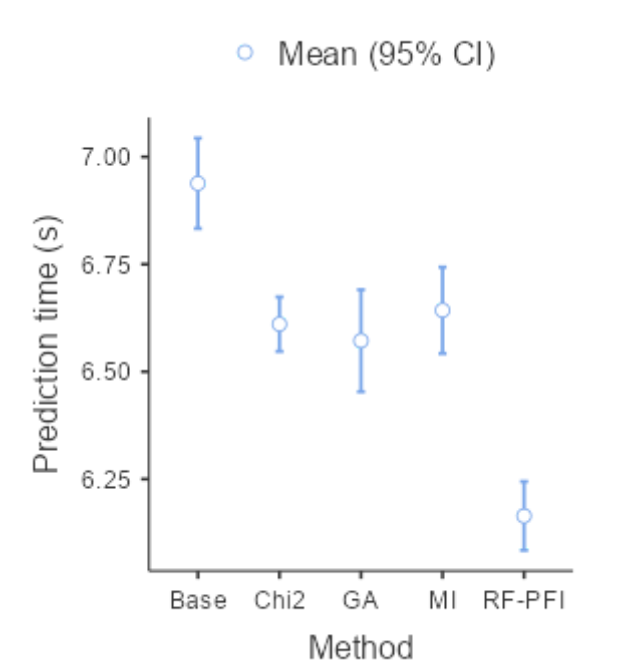
Note. A low p-value suggests a violation of the assumption of normality

Homogeneity of Variances Test (Levene's)

	F	df1	df2	p
Prediction time (s)	0.989	4	45	0.423

Plots

Prediction time (s)



Post Hoc Tests

Tukey Post-Hoc Test – Prediction time (s)

		Base	Chi2	GA	MI	RF-PFI
Base	p-value	—	1.72e-5	1.93e-6	1.03e-4	2.45e-13
Chi2	p-value		—	0.967	0.983	2.03e -8
GA	p-value			—	0.760	1.82e -7
MI	p-value				—	3.31e -9
RF-PFI	p-value					—





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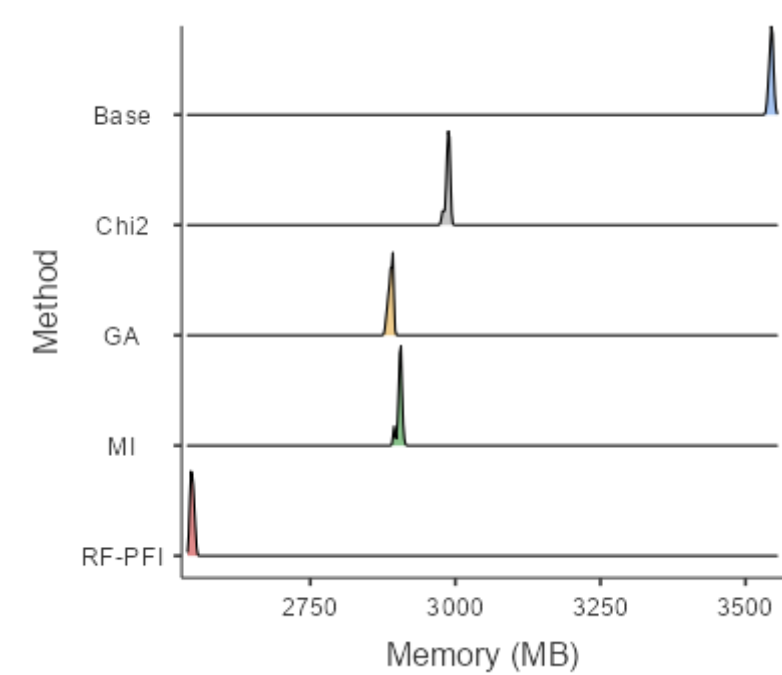
Descriptives

	Method	Memory (MB)
Mean	Base	3544.264
	Chi2	2987.076
	GA	2888.611
	MI	2904.176
	RF-PFI	2546.428
95% CI mean lower bound	Base	3542.001
	Chi2	2984.544
	GA	2885.793
	MI	2901.288
	RF-PFI	2544.310
95% CI mean upper bound	Base	3546.527
	Chi2	2989.608
	GA	2891.430
	MI	2907.063
	RF-PFI	2548.546
Median	Base	3545.715
	Chi2	2987.785
	GA	2888.594
	MI	2905.664
	RF-PFI	2547.133
Standard deviation	Base	3.164
	Chi2	3.540
	GA	3.940
	MI	4.036
	RF-PFI	2.960

*Note.* The CI of the mean assumes sample means follow a t-distribution with N - 1 degrees of freedom

## Plots

Memory (MB)



One-Way ANOVA (Non-parametric)

Kruskal-Wallis

	$\chi^2$	df	p
Memory (MB)	47.059	4	1.48e-9

Dwass-Steel-Critchlow-Fligner pairwise comparisons

Pairwise comparisons - Memory (MB)

		W	p
Base	Chi2	-5.345	0.00148
Base	GA	-5.345	0.00148
Base	MI	-5.345	0.00148
Base	RF-PFI	-5.345	0.00148
Chi2	GA	-5.345	0.00148
Chi2	MI	-5.345	0.00148
Chi2	RF-PFI	-5.345	0.00148
GA	MI	5.345	0.00148
GA	RF-PFI	-5.345	0.00148
MI	RF-PFI	-5.345	0.00148