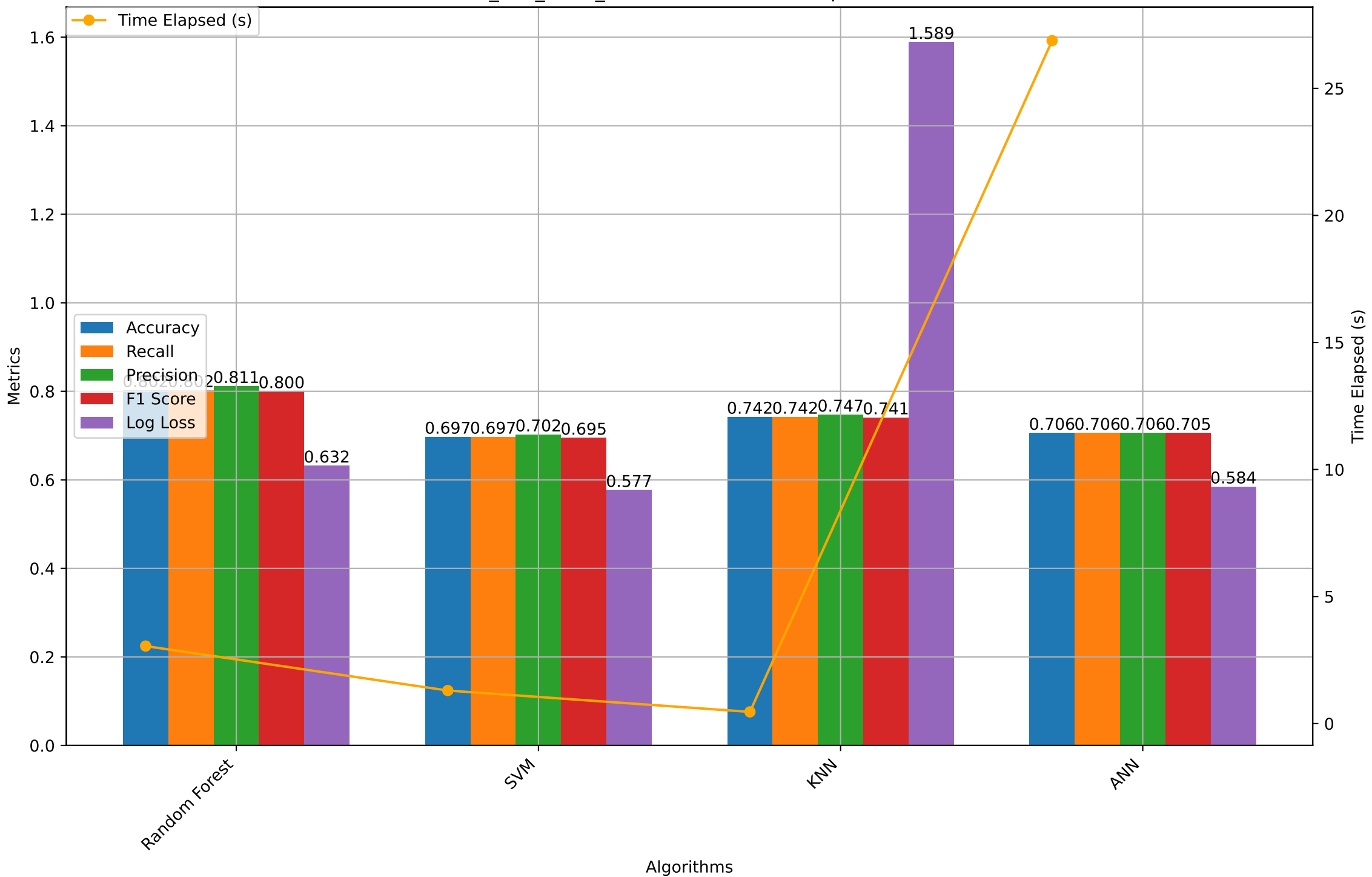
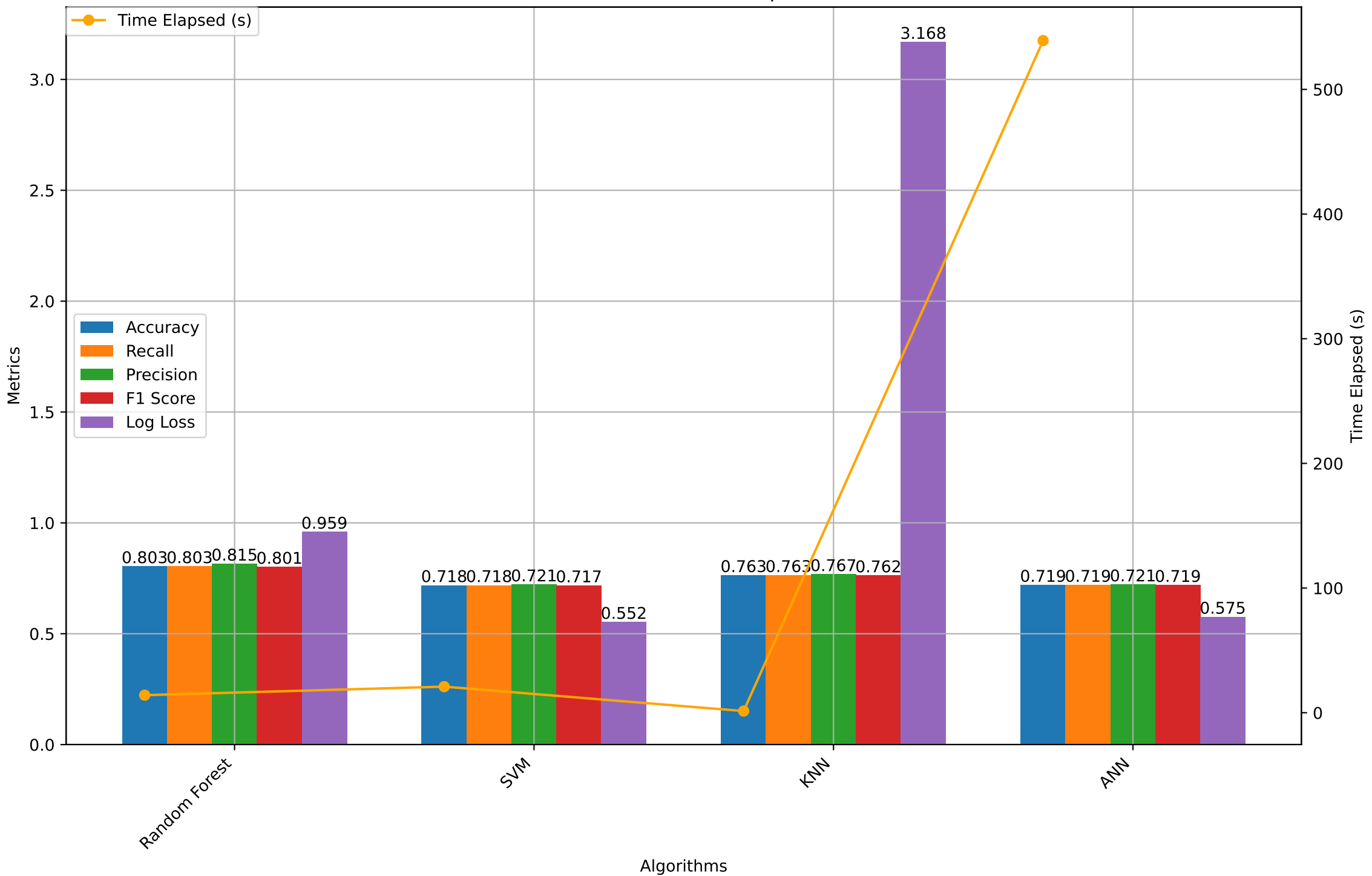


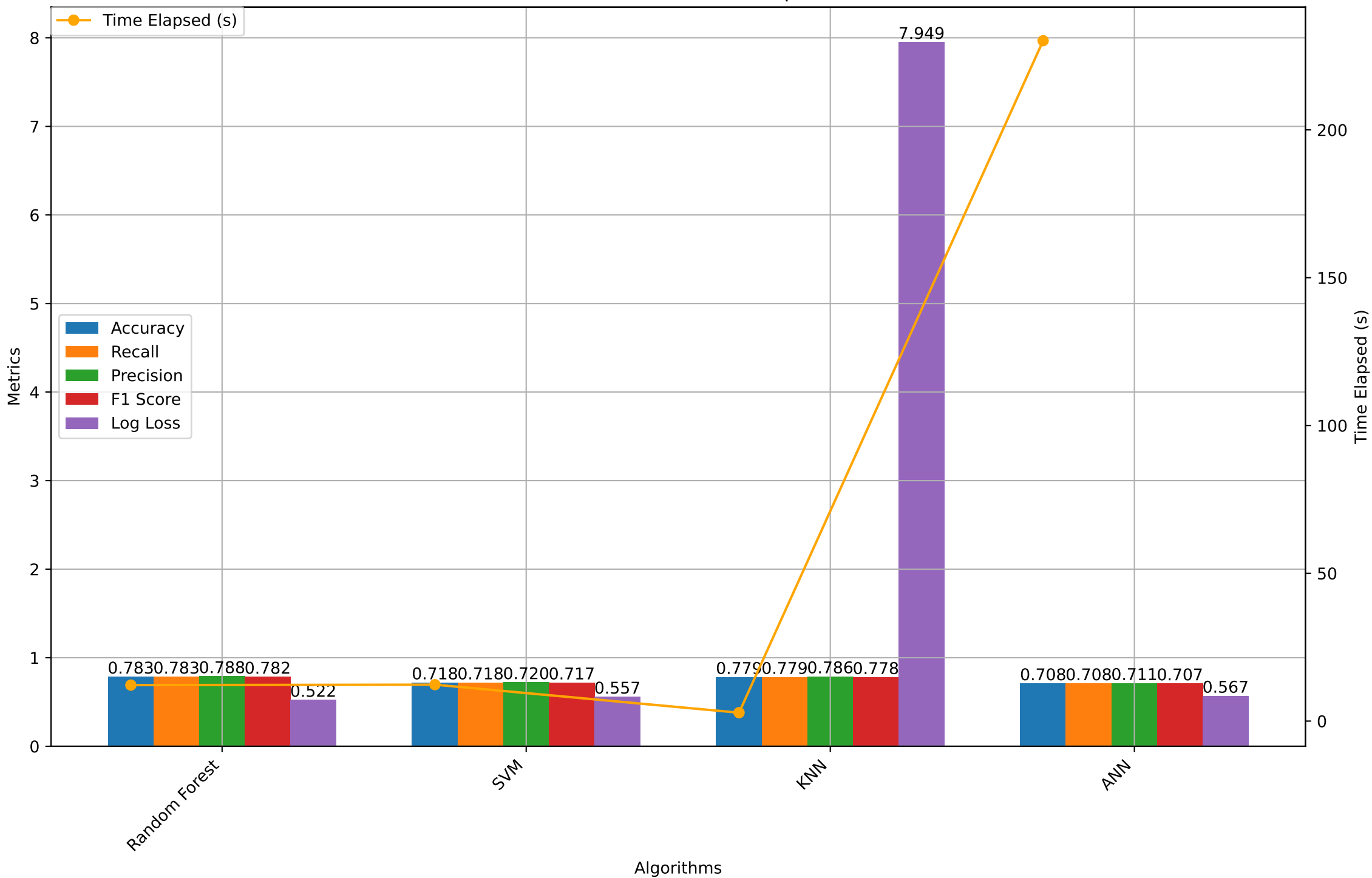
3_fold_cross_validation - Metric Comparison



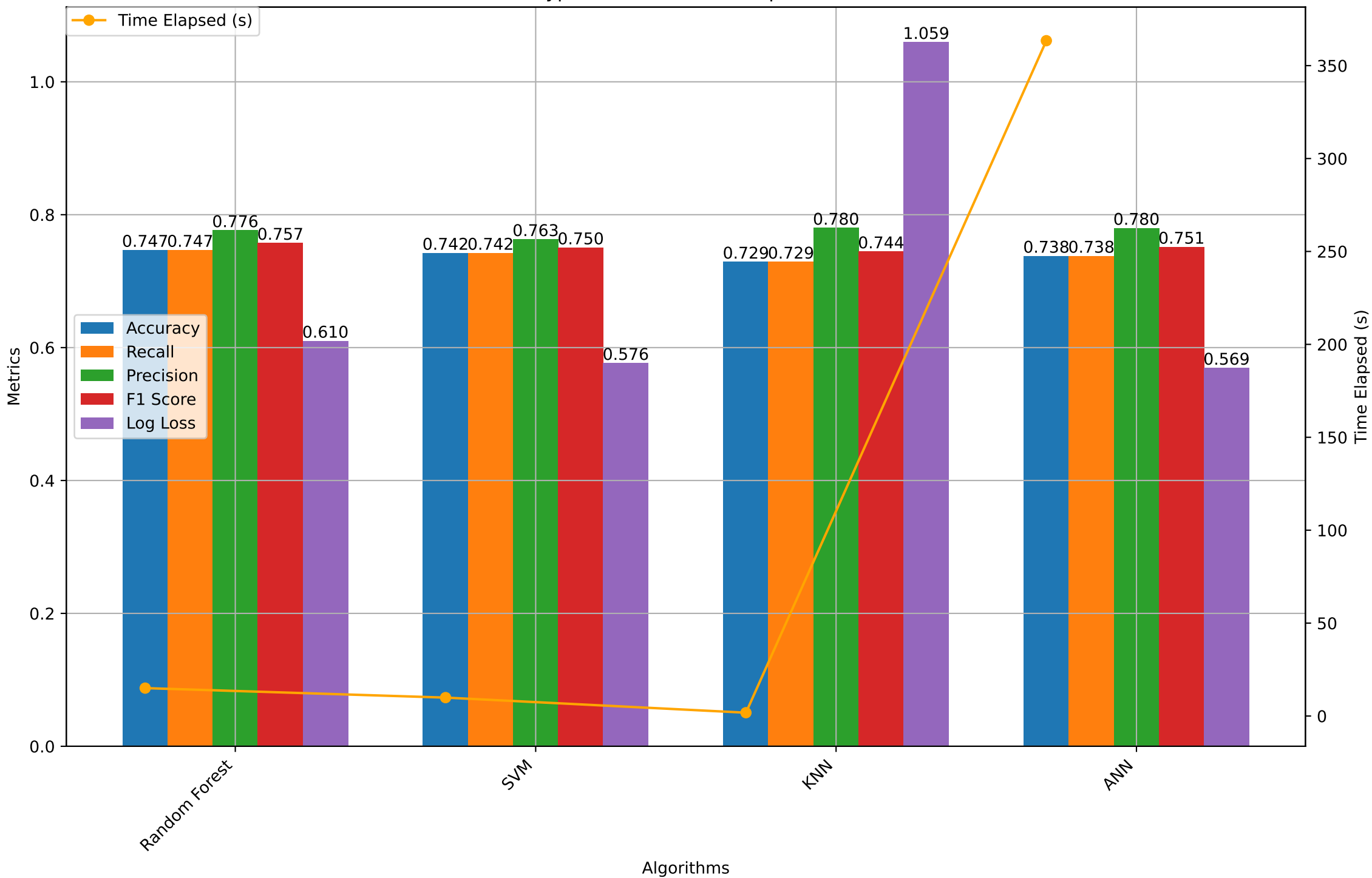
Grid Search - Metric Comparison



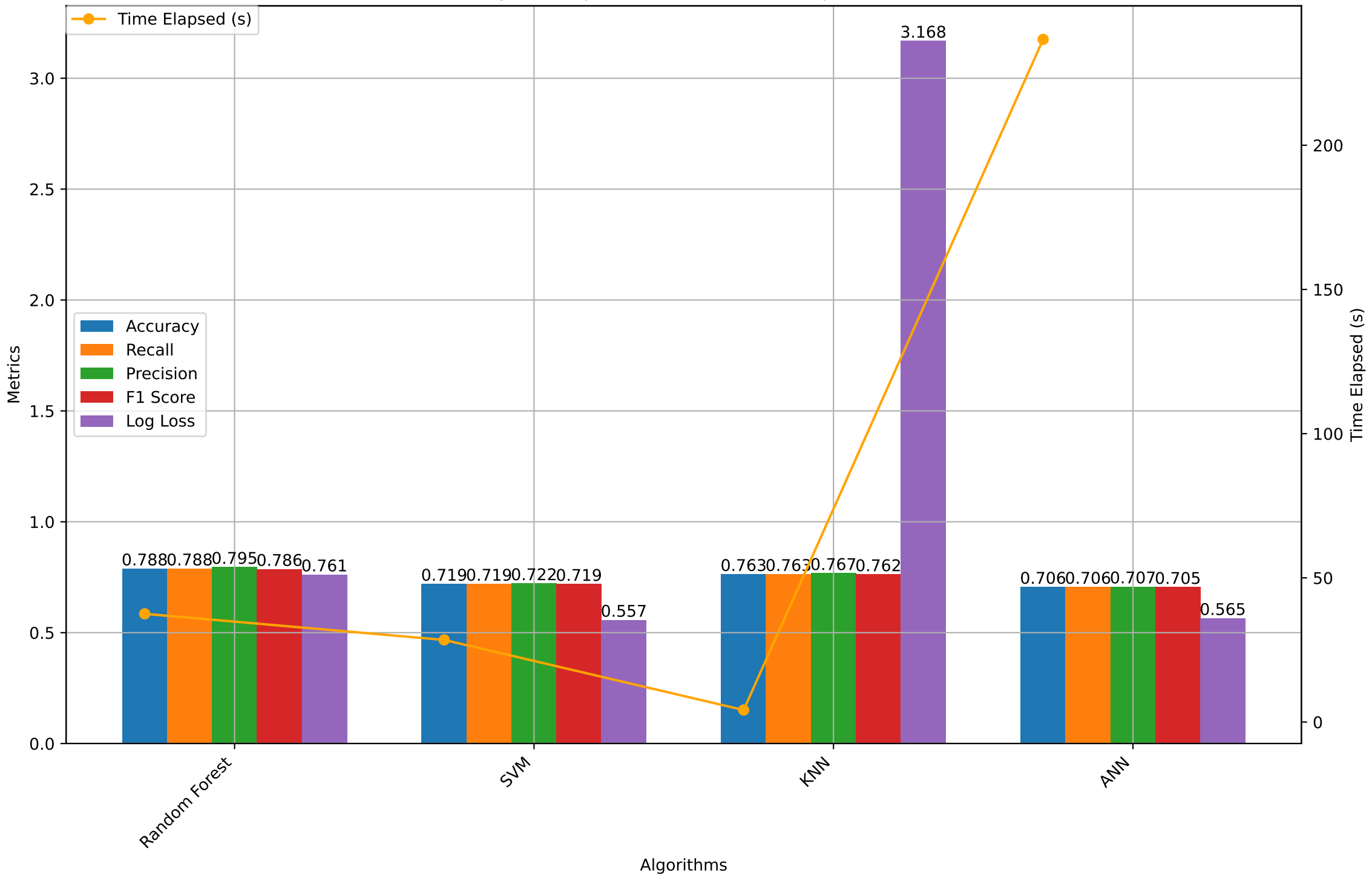
Random Search - Metric Comparison



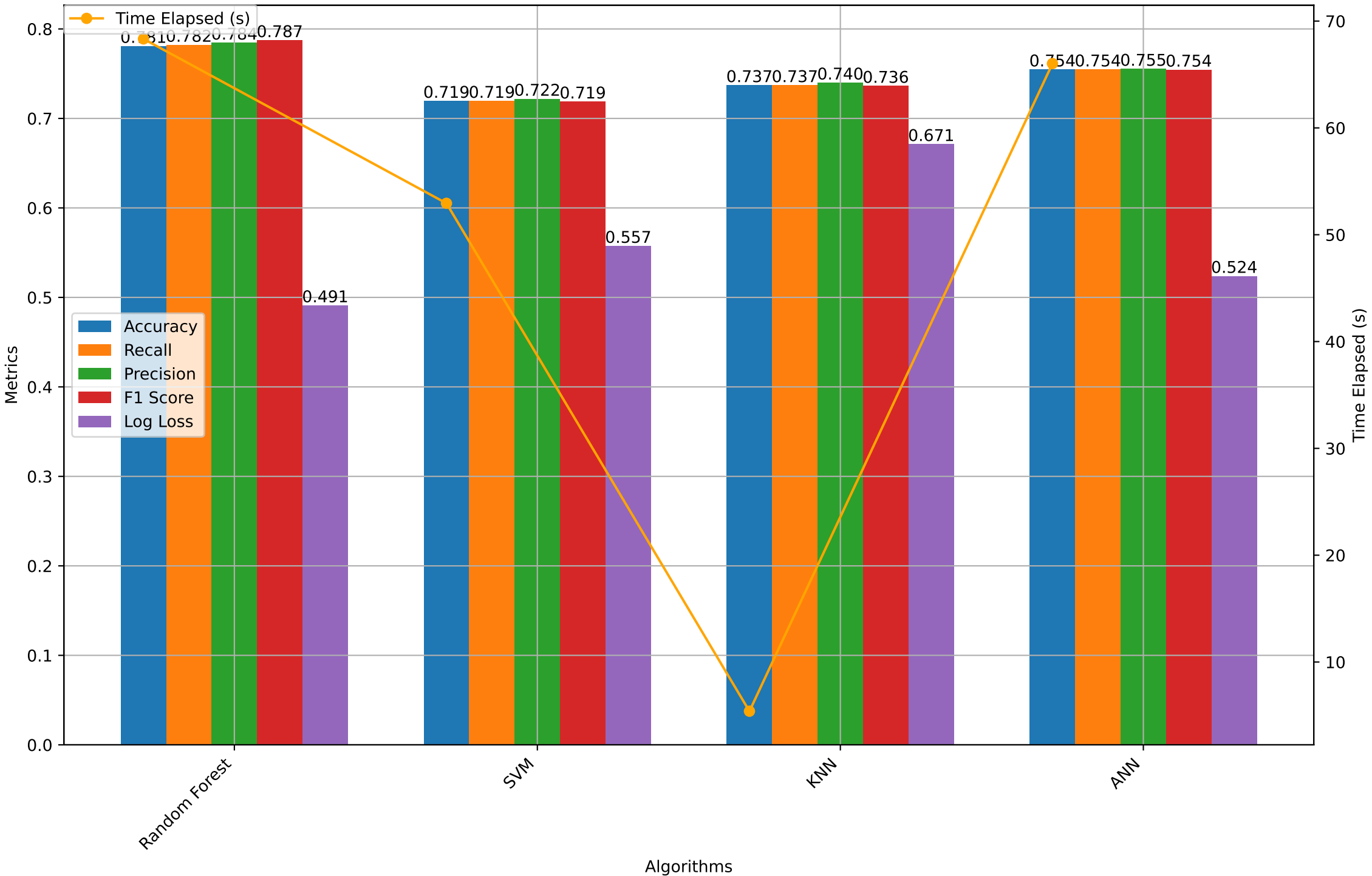
Hyperband - Metric Comparison



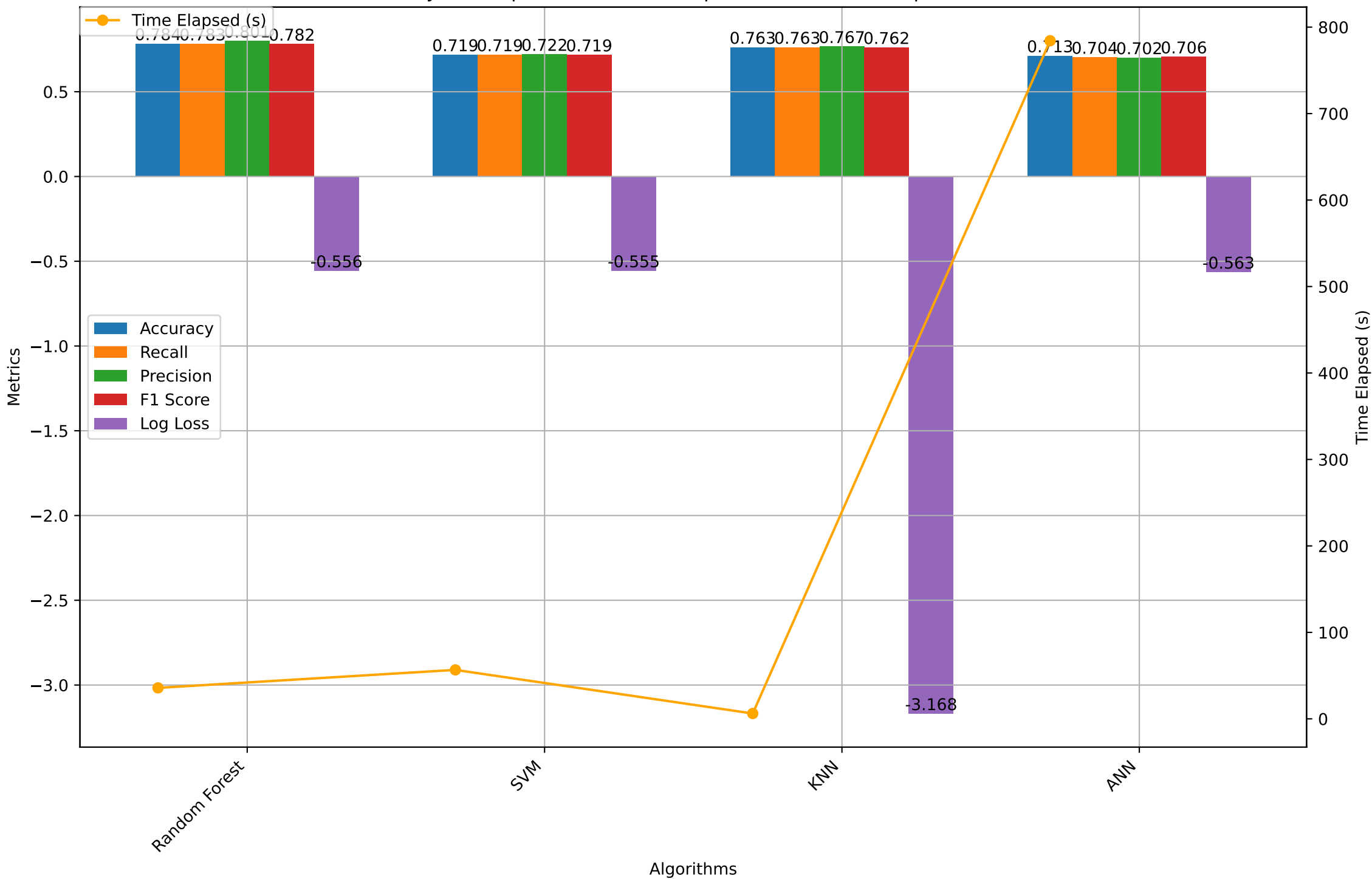
Bayesian Optimization - Metric Comparison



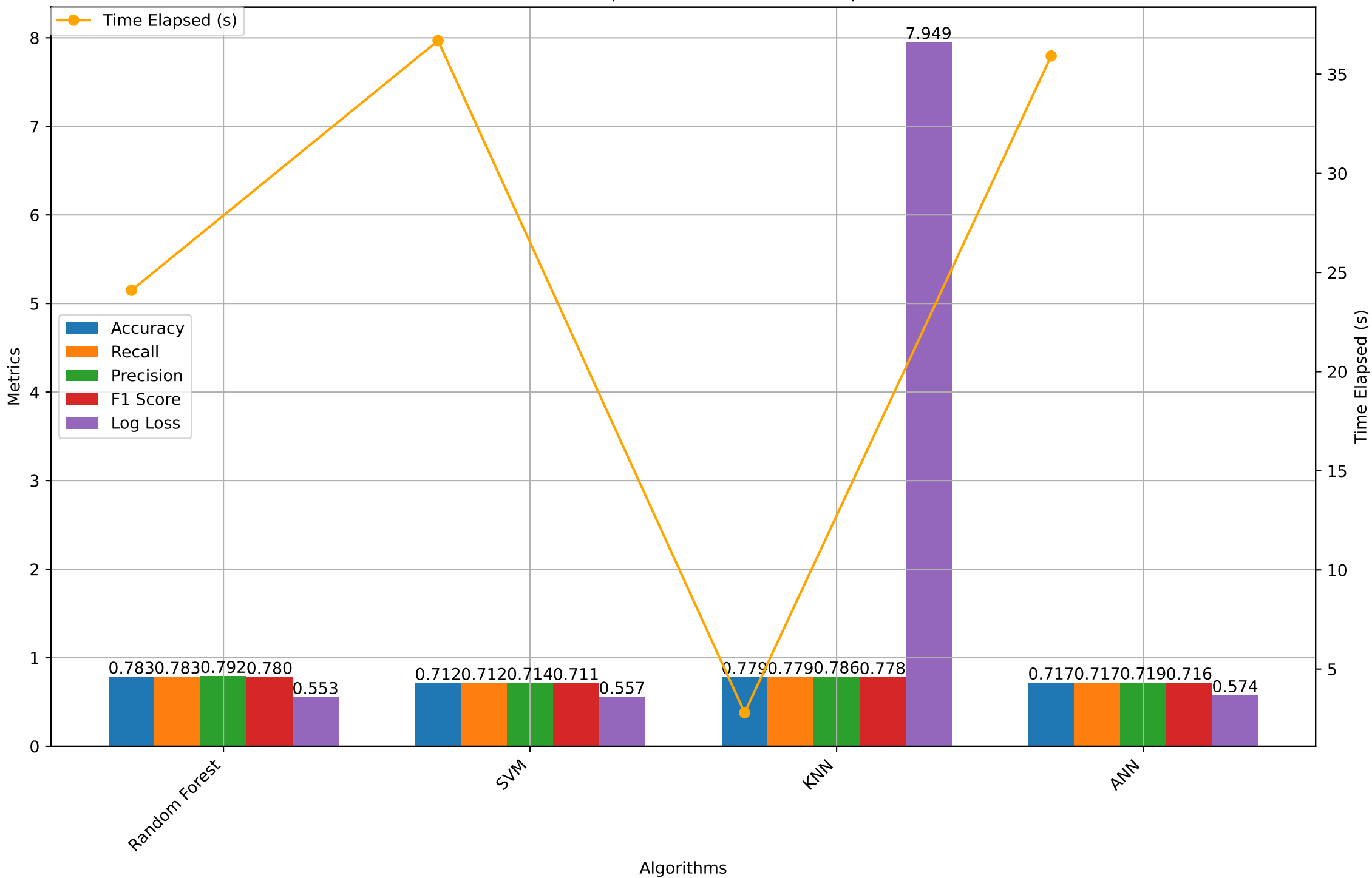
Sequential Model-Based Optimization (skopt) - Metric Comparison



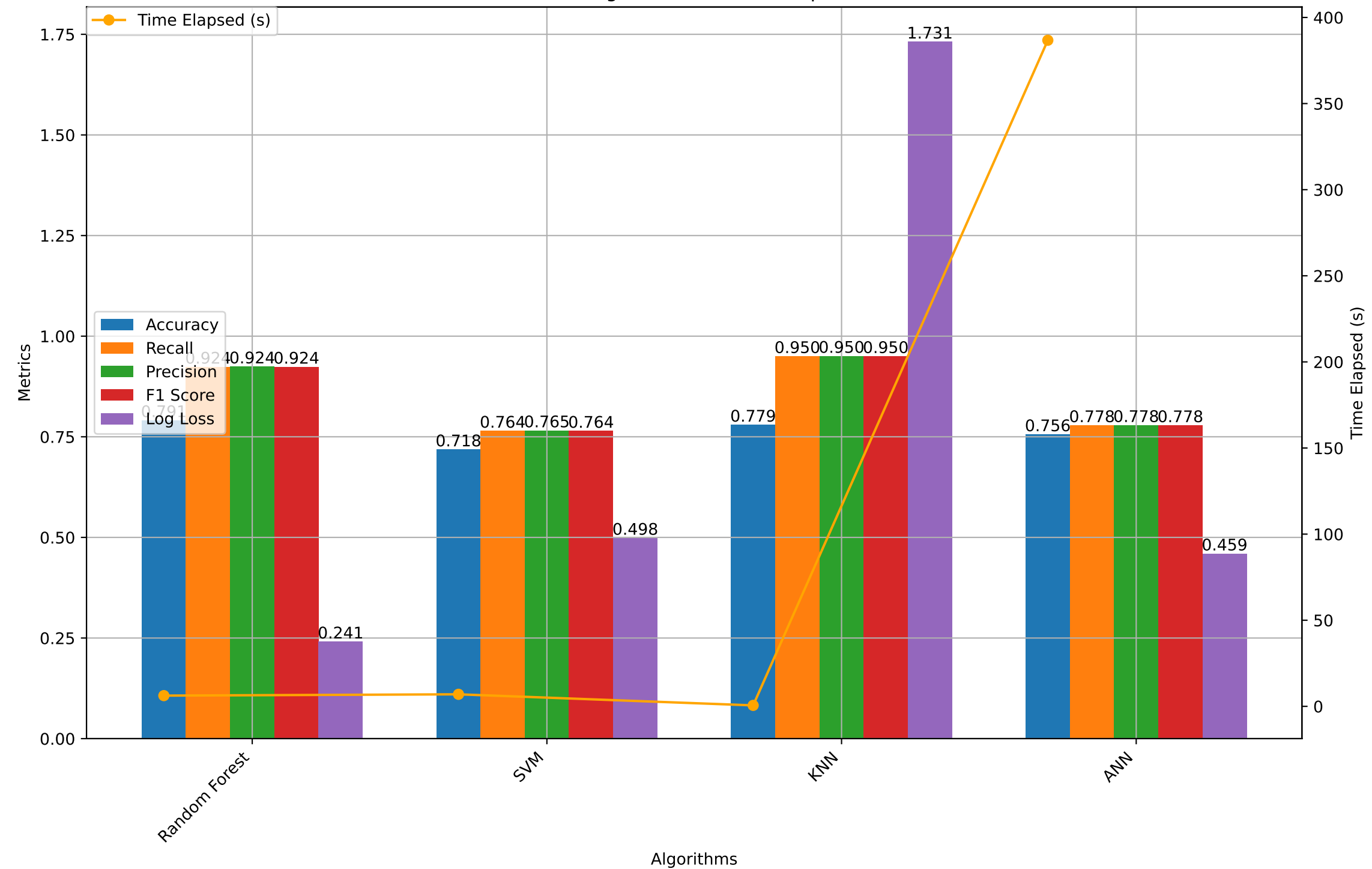
Bayesian Optimization (scikit-optimize) - Metric Comparison



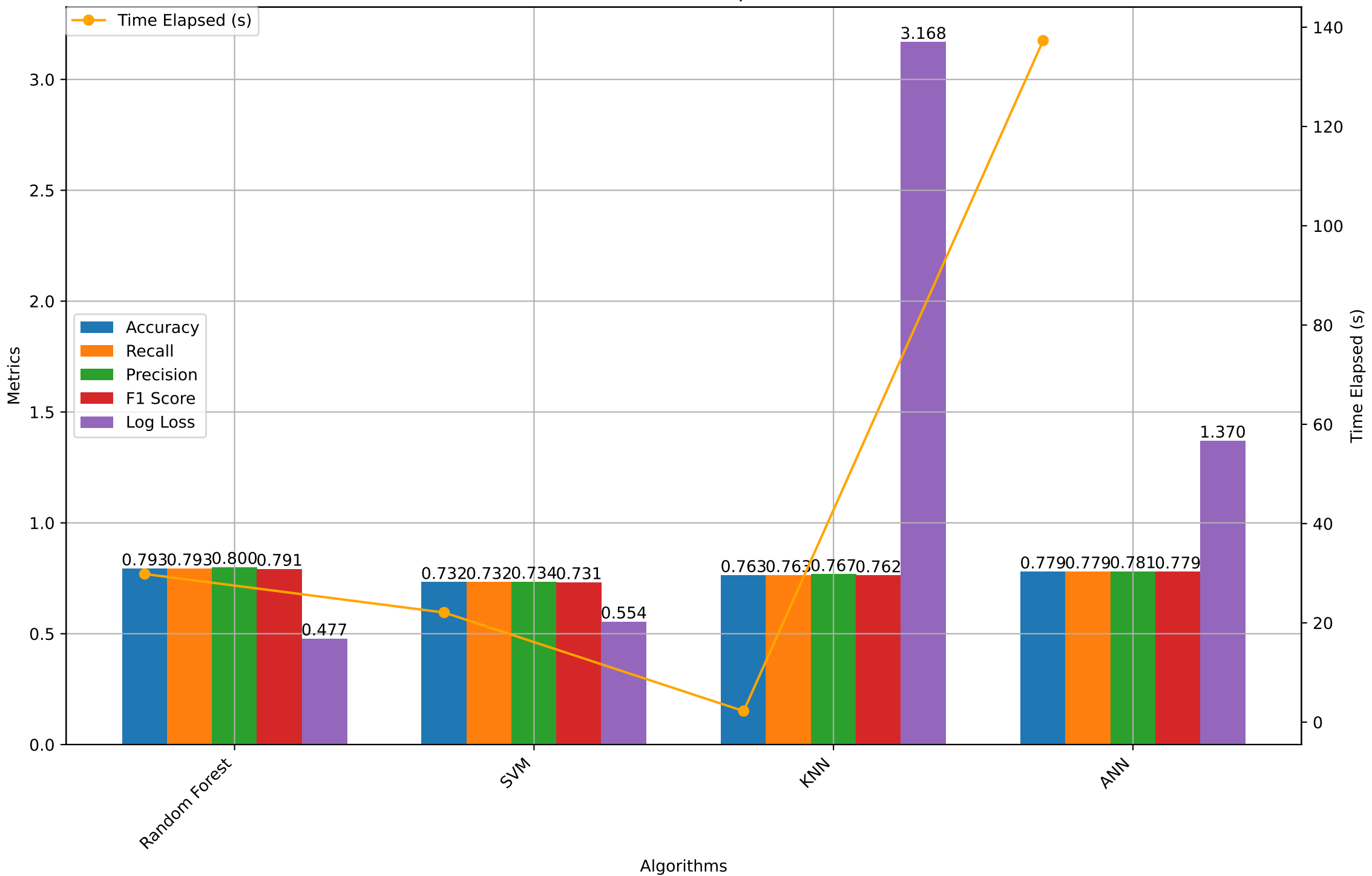
Particle Swarm Optimization - Metric Comparison



Genetic Algorithm - Metric Comparison



TPOT - Metric Comparison



Best Algorithm and Procedure Summary:

Procedure	Accuracy Winner	Recall Winner	Precision Winner	F1 Score Winner	Log Loss Winner	Accuracy Value	Recall Value	Precision Value	F1 Score Value	Log Loss Value	Time Winner	Time Elapsed (s)
3_fold_cross_validation	Random Forest	Random Forest	Random Forest	Random Forest	SVM	0.8020050125313283	0.8020050125313283	0.8113050371840332	0.7995797824924585	0.5765808597340328	KNN	0.46
Grid Search	Random Forest	Random Forest	Random Forest	Random Forest	SVM	0.8032581453634086	0.8032581453634086	0.8148342237503745	0.8005276305518443	0.5520511083218769	KNN	1.34
Random Search	Random Forest	Random Forest	Random Forest	Random Forest	Random Forest	0.7832080200501254	0.7832080200501252	0.7879797978164338	0.7819036543998877	0.5215861783123749	KNN	2.84
Hyperband	Random Forest	Random Forest	KNN	Random Forest	ANN	0.7466666666666667	0.7466666666666667	0.7799074074074074	0.7572676923076924	0.5692338028384579	KNN	1.7906162738800049
Bayesian Optimization	Random Forest	Random Forest	Random Forest	Random Forest	SVM	0.7882205513784463	0.7882205513784463	0.7952958459619183	0.7860260618742968	0.5567313109773521	KNN	4.17
Sequential Model-Based Optimization (skopt)	Random Forest	Random Forest	Random Forest	Random Forest	Random Forest	0.7807017543859649	0.7819548872180451	0.7843767094458975	0.7870994013811007	0.4908324826933193	KNN	5.393978834152222
Bayesian Optimization (scikit-optimize)	Random Forest	Random Forest	Random Forest	Random Forest	KNN	0.7844611528822054	0.7832080200501252	0.8008873523552692	0.7817537234744848	-3.1679844992047634	KNN	6.18
Particle Swarm Optimization	Random Forest	Random Forest	Random Forest	Random Forest	Random Forest	0.7832080200501254	0.7832080200501254	0.7916983645722414	0.7804629153223602	0.5531457996022421	KNN	2.8
Genetic Algorithm	Random Forest	KNN	KNN	KNN	Random Forest	0.7907268170426065	0.949874686716792	0.950429231785164	0.949859254046446	0.2407230759385243	KNN	0.56
TPOT	Random Forest	Random Forest	Random Forest	Random Forest	Random Forest	0.793233082706767	0.793233082706767	0.7998732168530194	0.7914795980152665	0.4774467252937696	KNN	2.23

Overall Best Algorithm and Procedure:

Procedure	Accuracy Winner	Recall Winner	Precision Winner	F1 Score Winner	Log Loss Winner	Accuracy Value	Recall Value	Precision Value	F1 Score Value	Log Loss Value	Time Winner	Time Elapsed (s)
Grid Search	Random Forest	Random Forest	Random Forest	Random Forest	SVM	0.8032581453634086	0.8032581453634086	0.8148342237503745	0.8005276305518443	0.5520511083218769	KNN	1.34