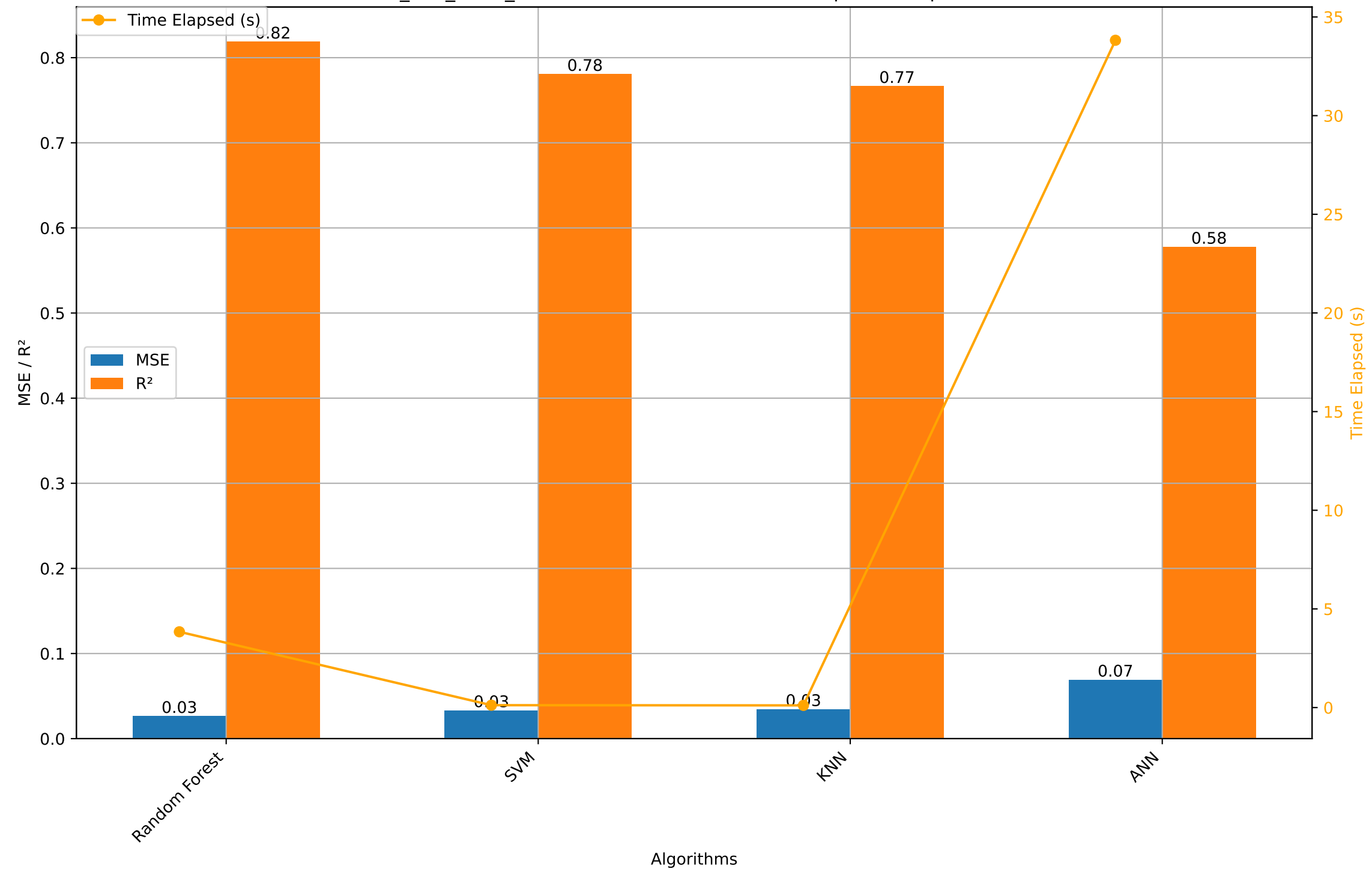
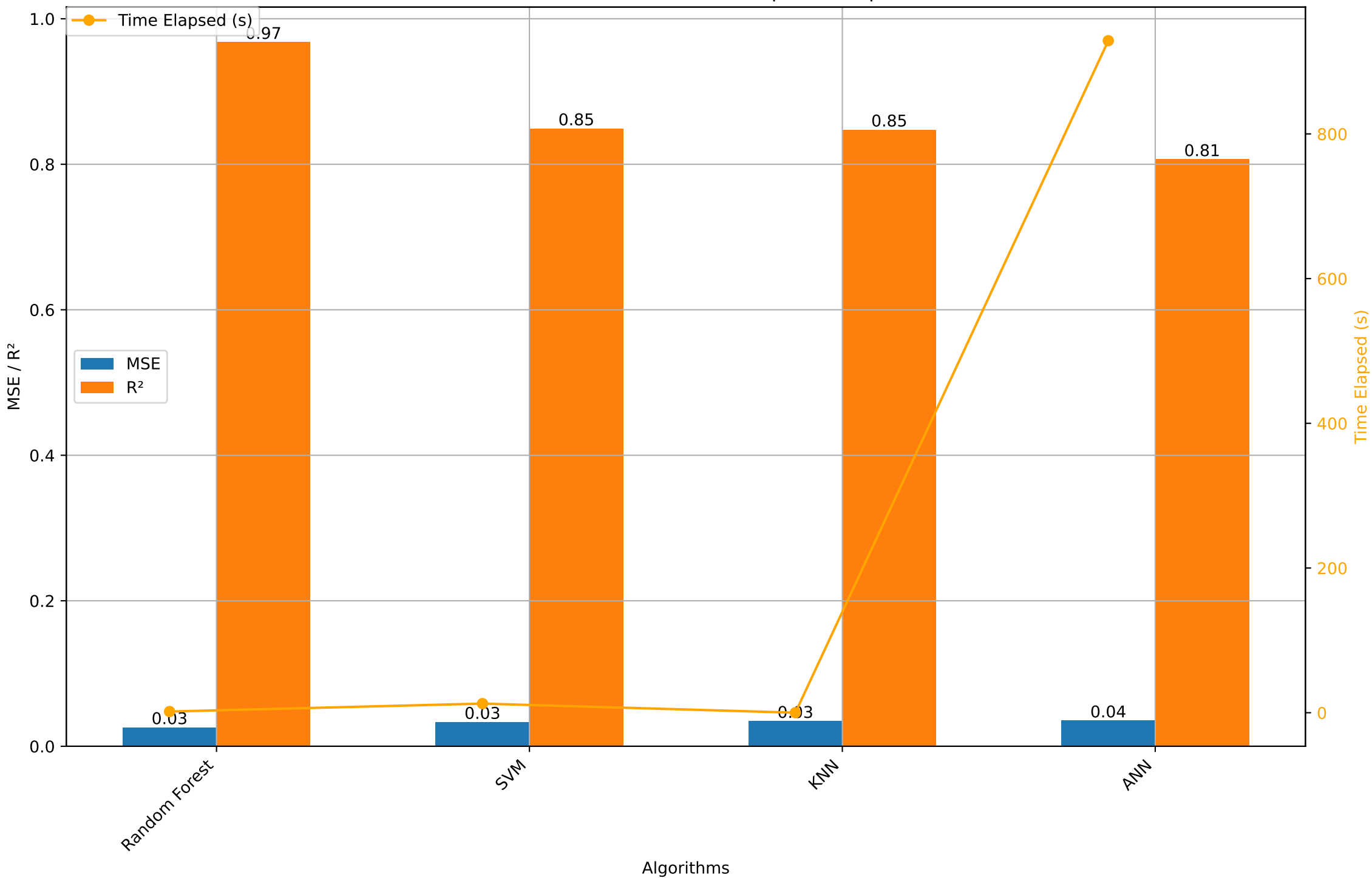


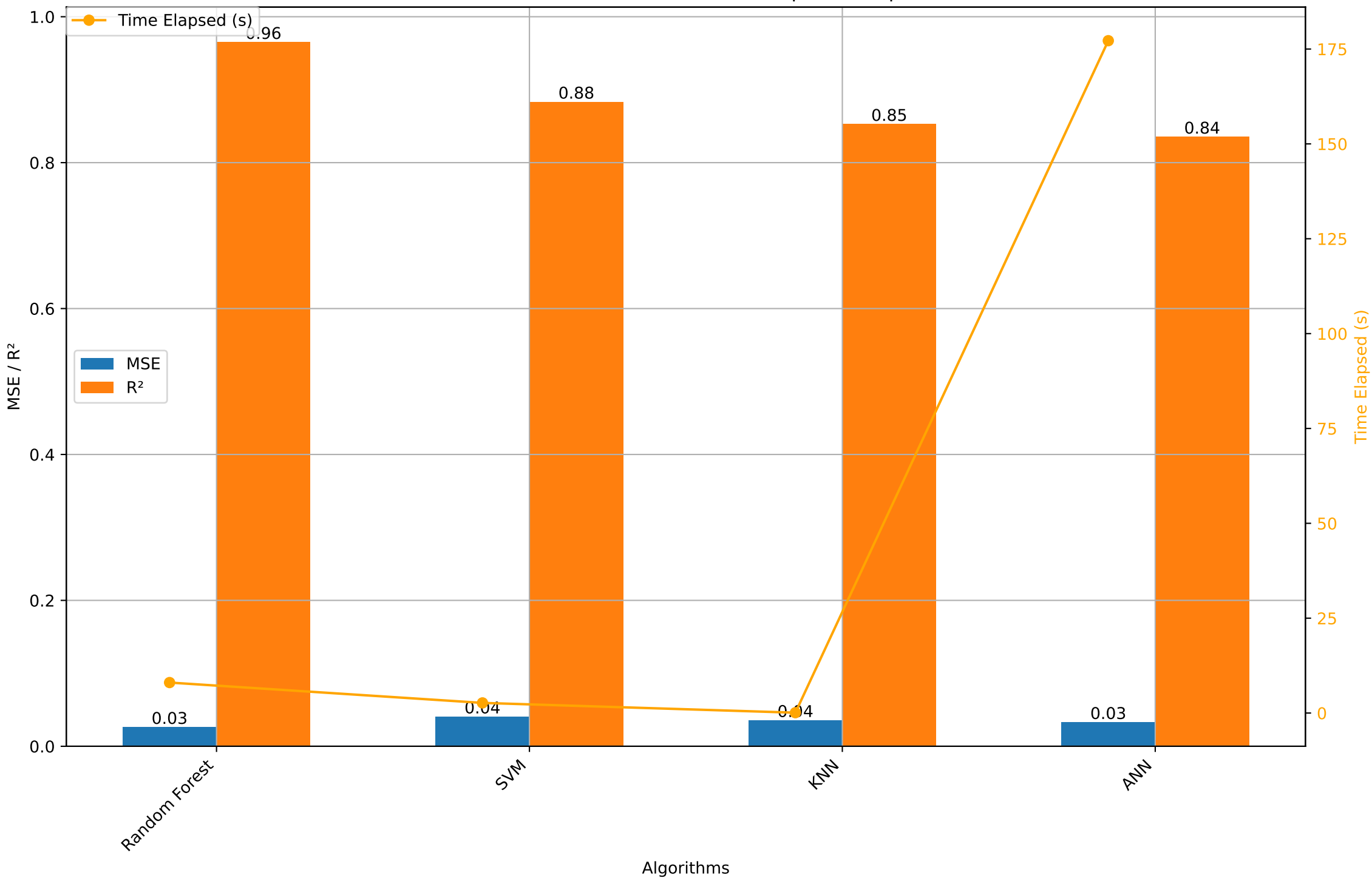
# 3\_fold\_cross\_validation - MSE, R<sup>2</sup> and Time Elapsed Comparison

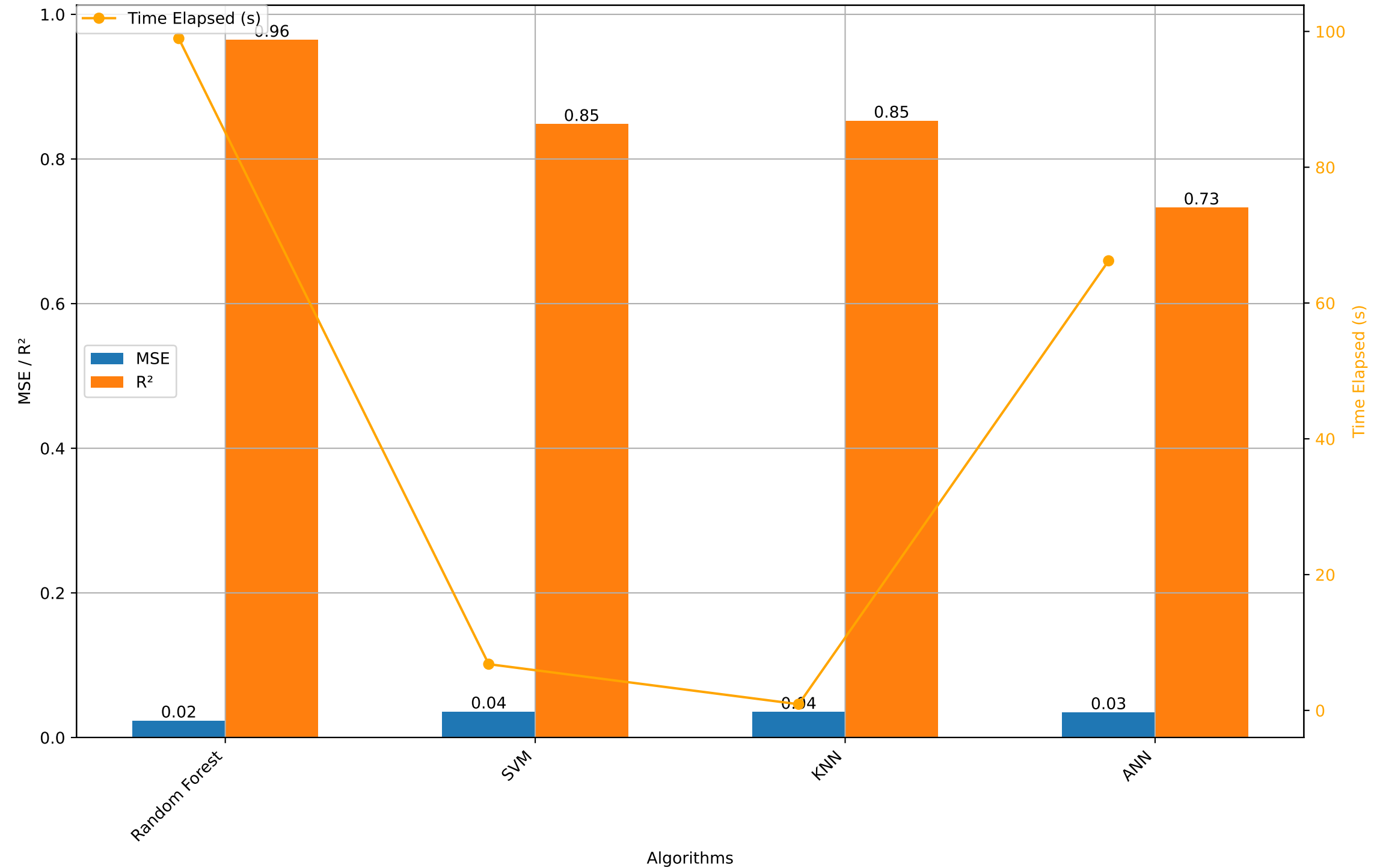


Grid Search - MSE, R<sup>2</sup> and Time Elapsed Comparison

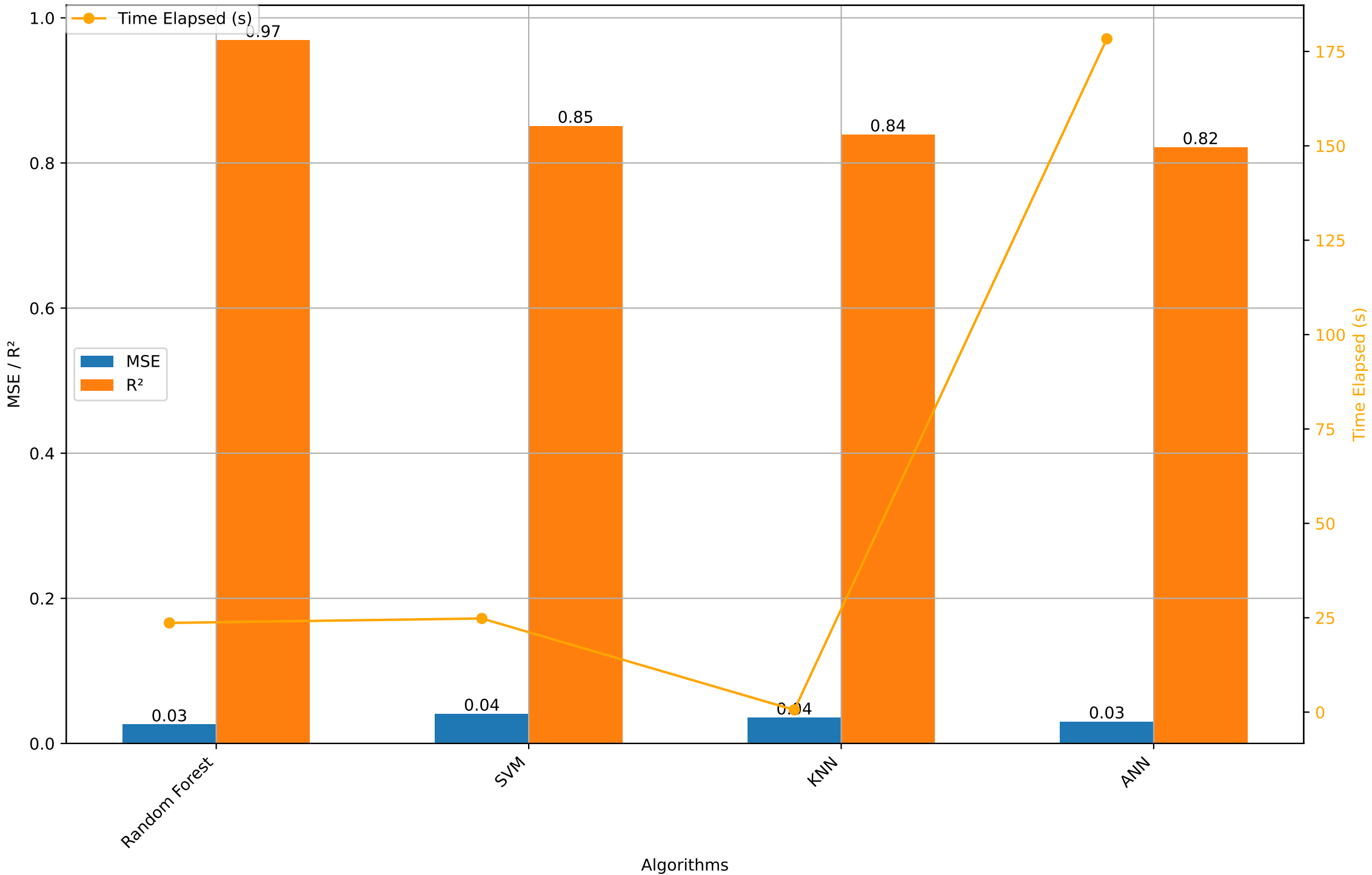


Random Search - MSE, R<sup>2</sup> and Time Elapsed Comparison

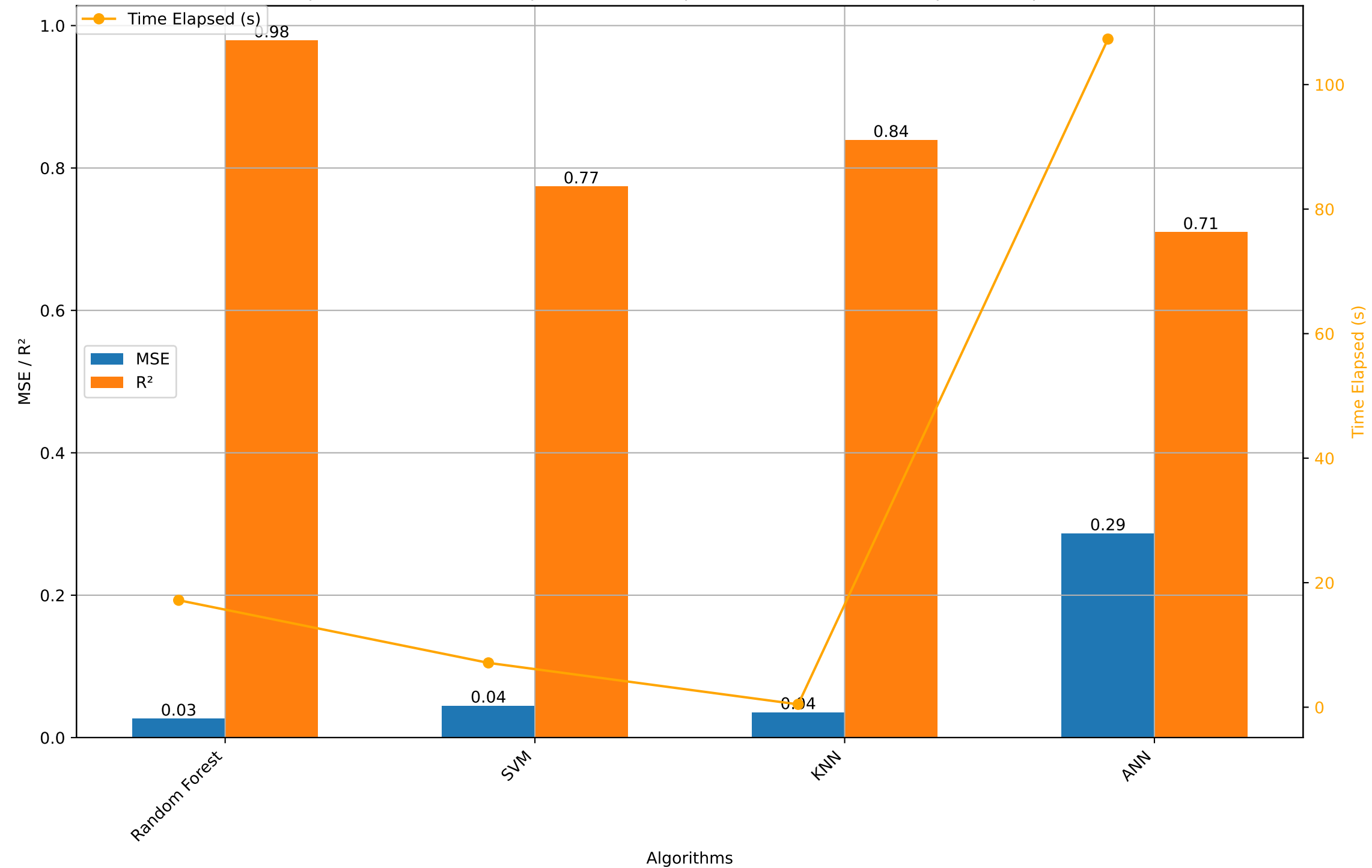


Hyperband - MSE, R<sup>2</sup> and Time Elapsed Comparison

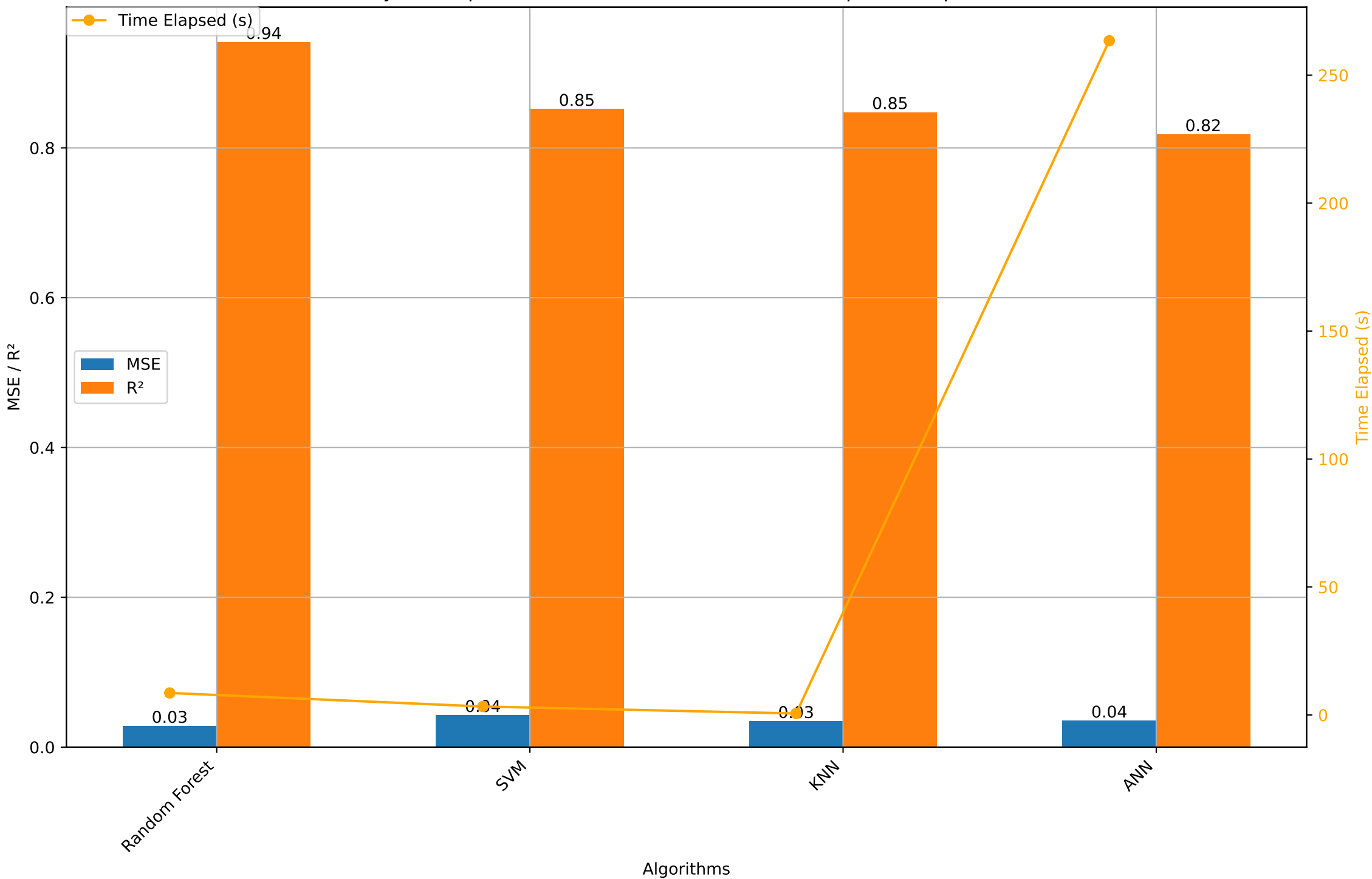
# Bayesian Optimization - MSE, R<sup>2</sup> and Time Elapsed Comparison



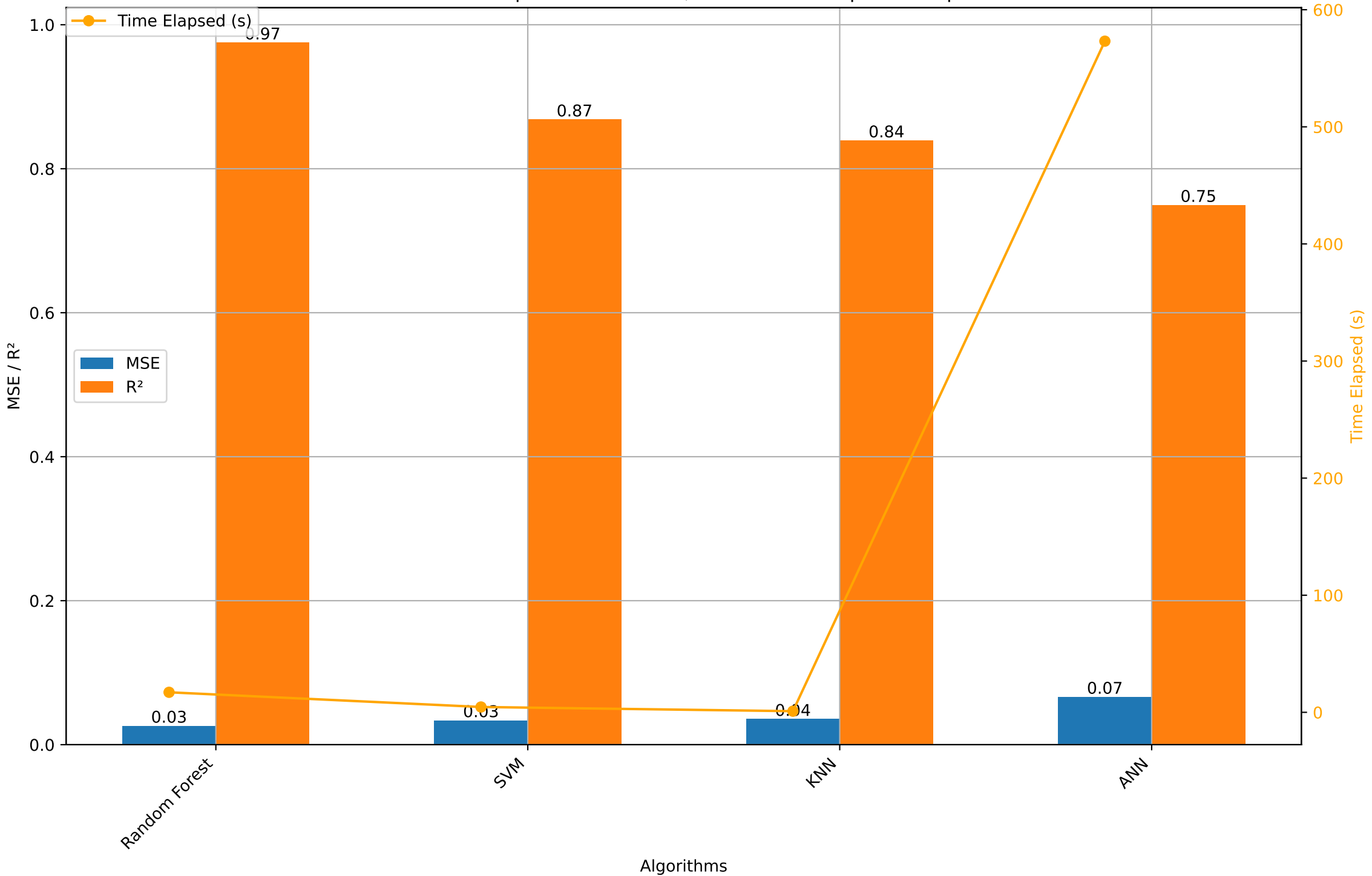
Sequential Model-Based Optimization (skopt) - MSE, R<sup>2</sup> and Time Elapsed Comparison



Bayesian Optimization TPE - MSE, R<sup>2</sup> and Time Elapsed Comparison

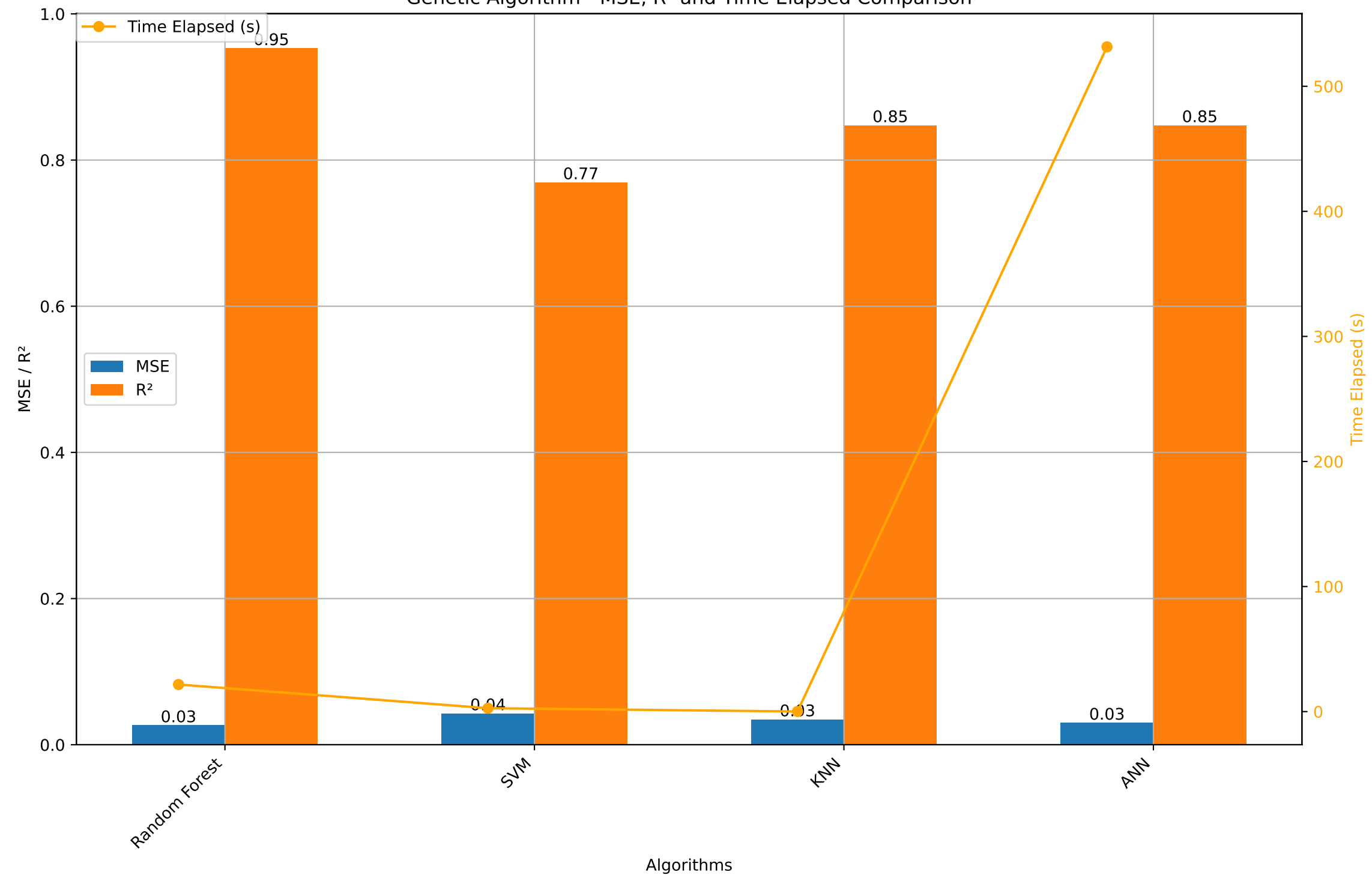


Particle Swarm Optimization - MSE, R<sup>2</sup> and Time Elapsed Comparison

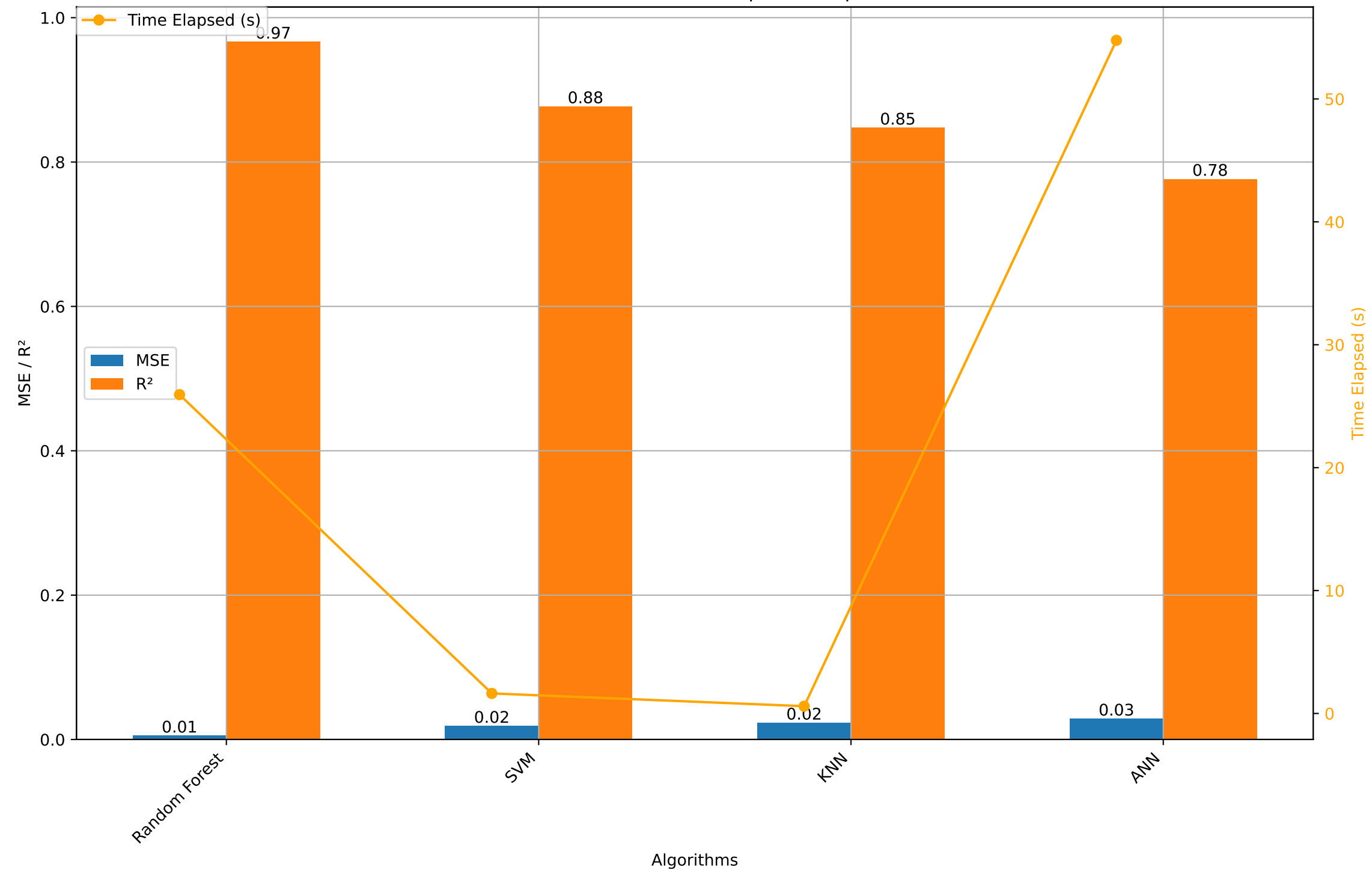




Genetic Algorithm - MSE, R<sup>2</sup> and Time Elapsed Comparison



TPOT - MSE, R<sup>2</sup> and Time Elapsed Comparison



Best Algorithm and Procedure Summary:

Procedure	MSE Winner	MSE Value	R² Winner	R² Value	Time Winner	Time Elapsed (s)
3_fold_cross_validation	Random Forest	0.0262964611572827	Random Forest	0.8185908565908901	KNN	0.11
Grid Search	Random Forest	0.025853256981255	Random Forest	0.9676775315271312	KNN	0.04
Random Search	Random Forest	0.0261051257185373	Random Forest	0.964971540554409	KNN	0.09
Hyperband	Random Forest	0.0231202269080368	Random Forest	0.9644354149705684	KNN	0.91
Bayesian Optimization	Random Forest	0.0259035394133889	Random Forest	0.9689131969461444	KNN	0.59
Sequential Model-Based Optimization (skopt)	Random Forest	0.0262423585013927	Random Forest	0.9788247662929468	KNN	0.46
Bayesian Optimization TPE	Random Forest	0.0280076081508893	Random Forest	0.940902894792214	KNN	0.57
Particle Swarm Optimization	Random Forest	0.025951252671417	Random Forest	0.97496694009755	KNN	0.97
Genetic Algorithm	Random Forest	0.0262789497018124	Random Forest	0.9527502439601752	KNN	0.07
TPOT	Random Forest	0.005053451464225	Random Forest	0.966442041286594	KNN	0.59

Overall Best Algorithm and Procedure:

Procedure	MSE Winner	MSE Value	R <sup>2</sup> Winner	R <sup>2</sup> Value	Time Winner	Time Elapsed (s)
Sequential Model-Based Optimization (skopt)	Random Forest	0.0262423585013927	Random Forest	0.9788247662929468	KNN	0.46