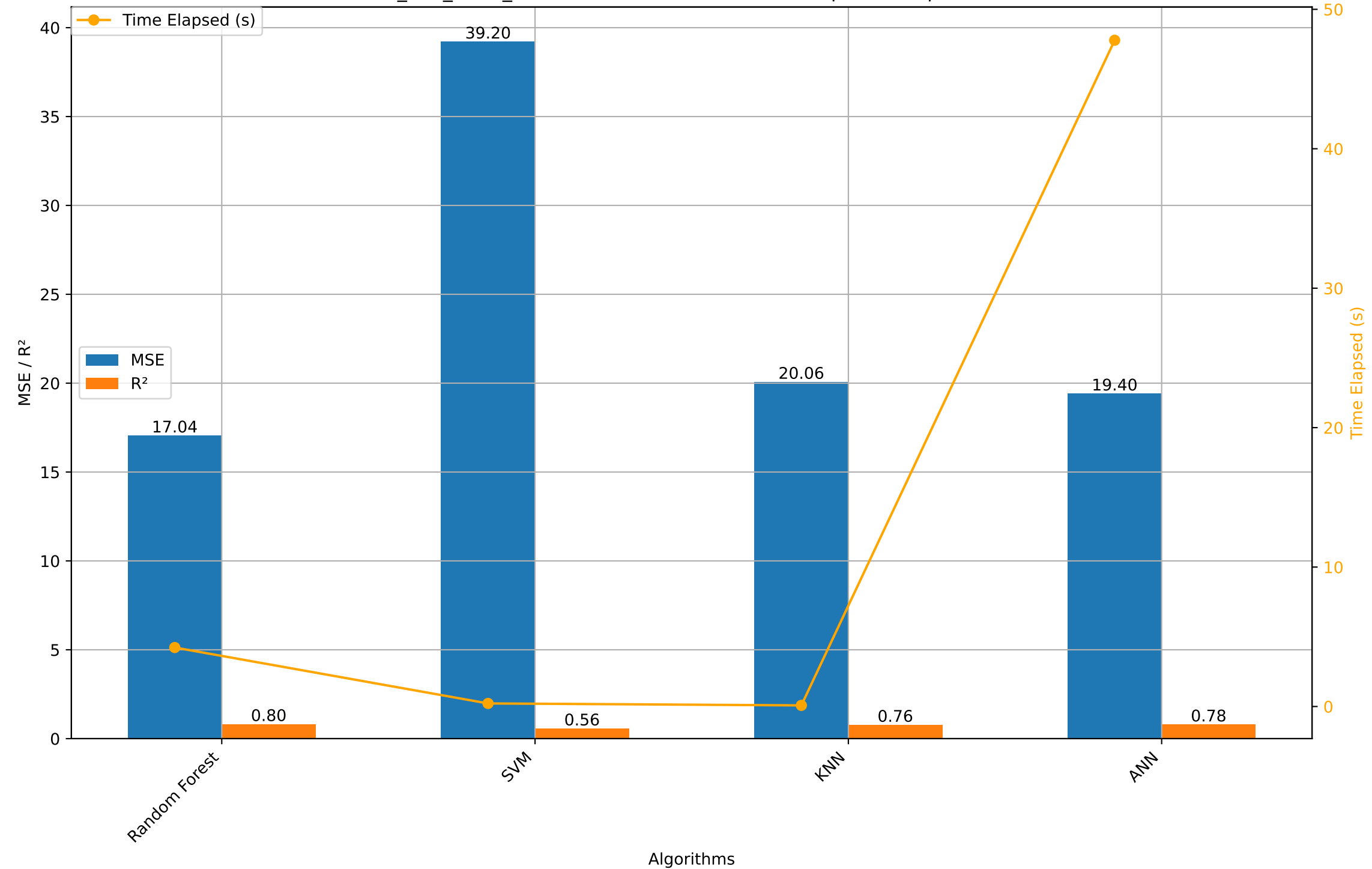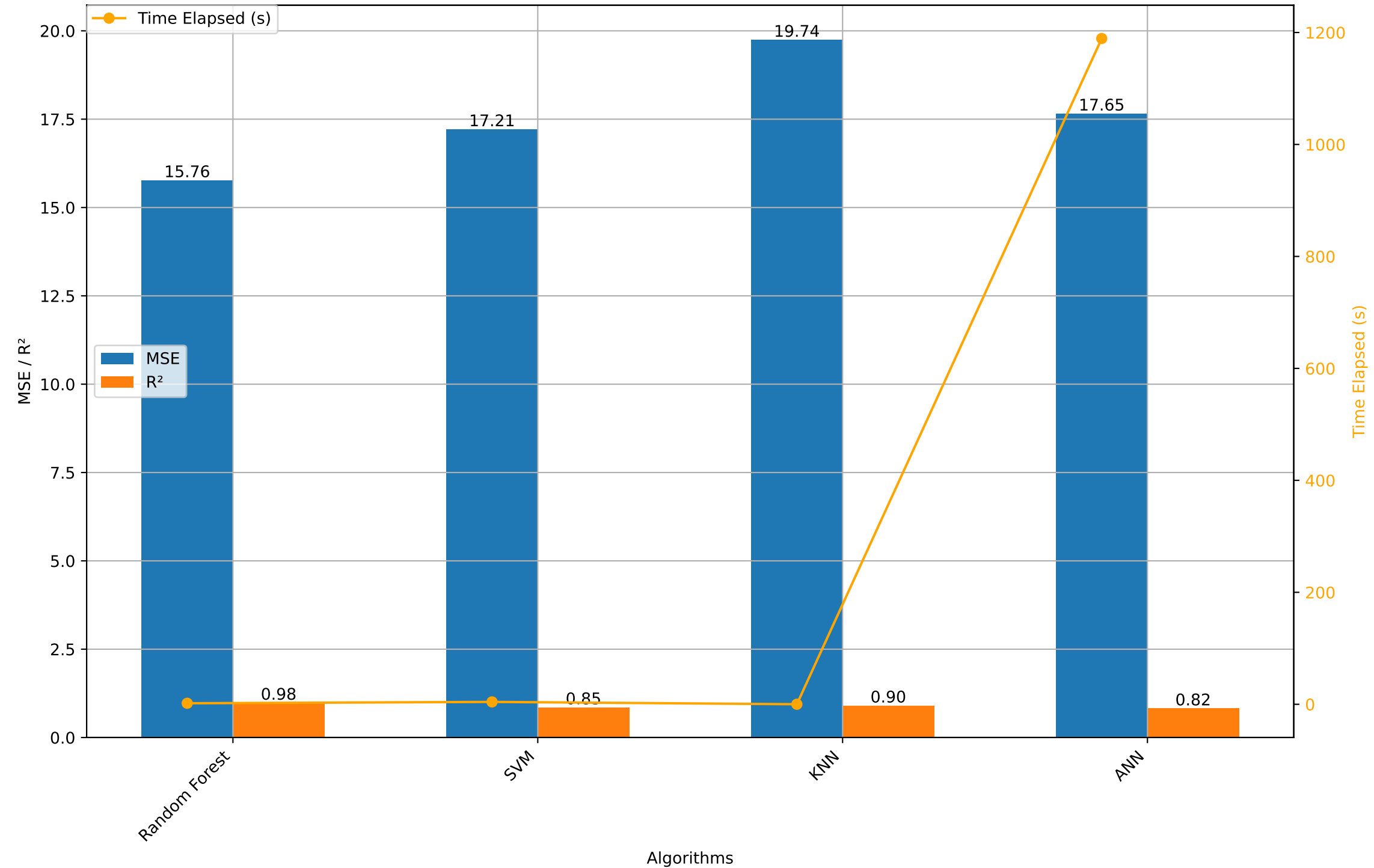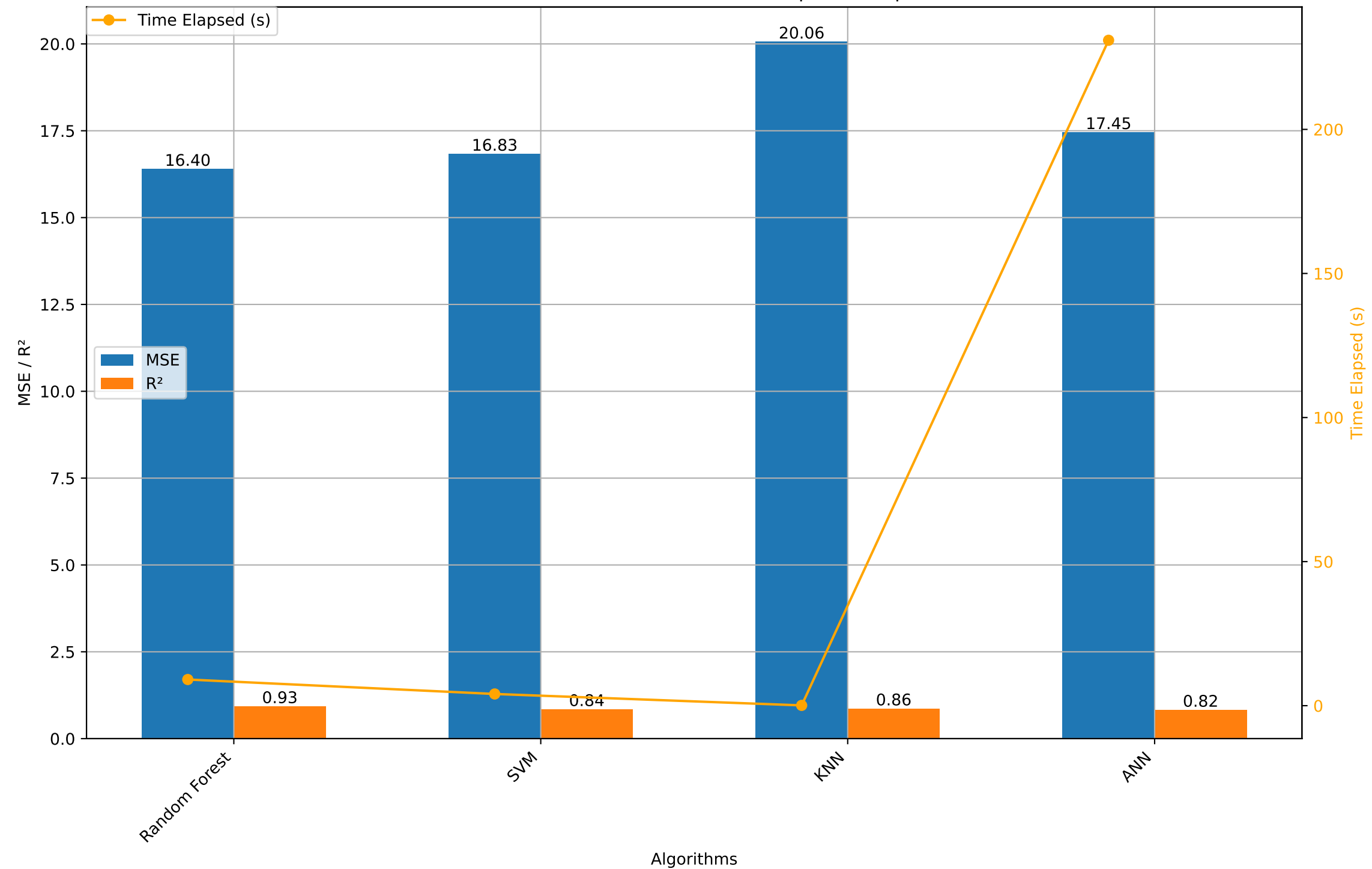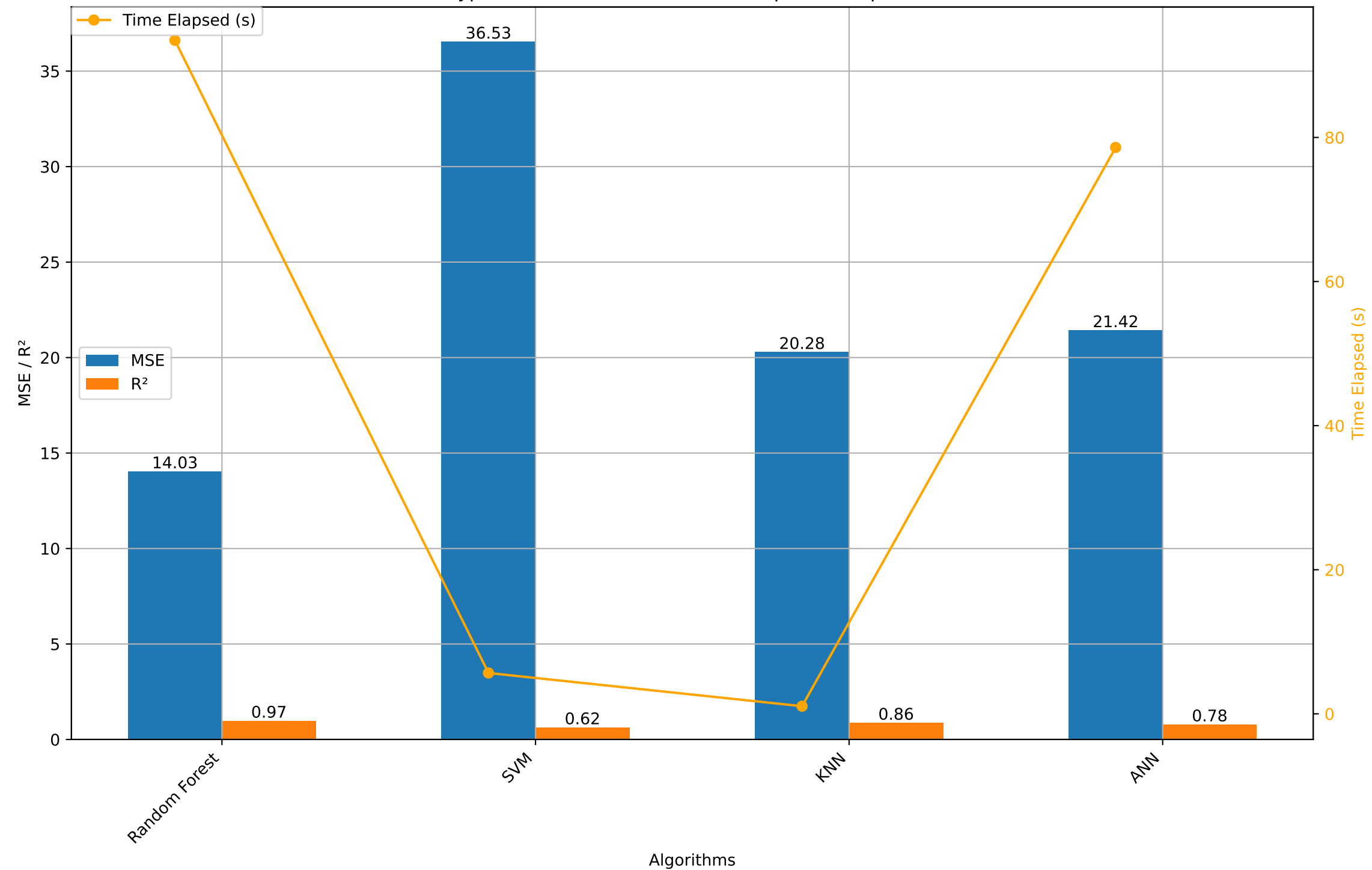3_fold_cross_validation - MSE, R² and Time Elapsed Comparison
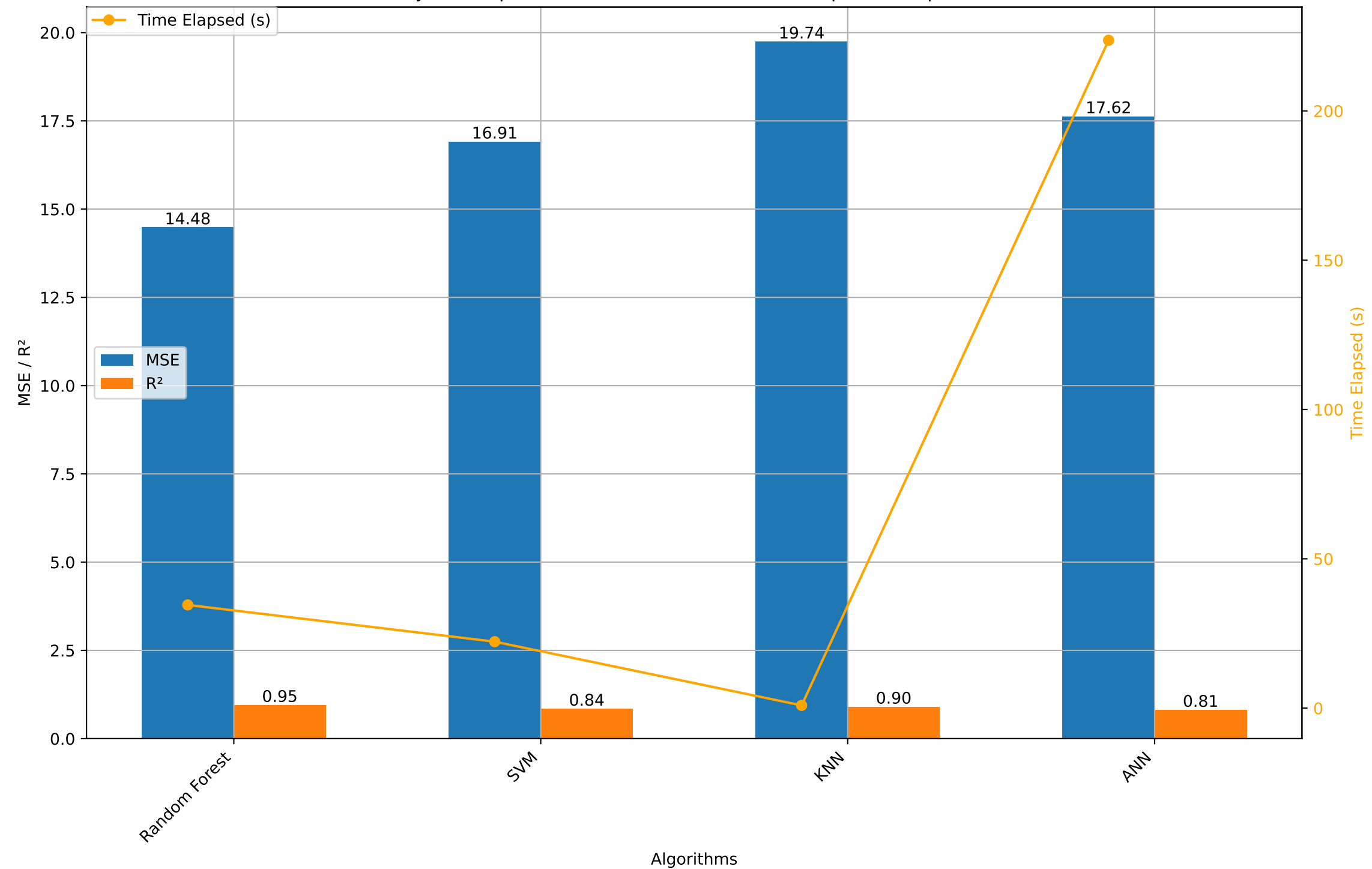
Grid Search - MSE, R² and Time Elapsed Comparison

Random Search - MSE, R² and Time Elapsed Comparison

Hyperband - MSE, R² and Time Elapsed Comparison
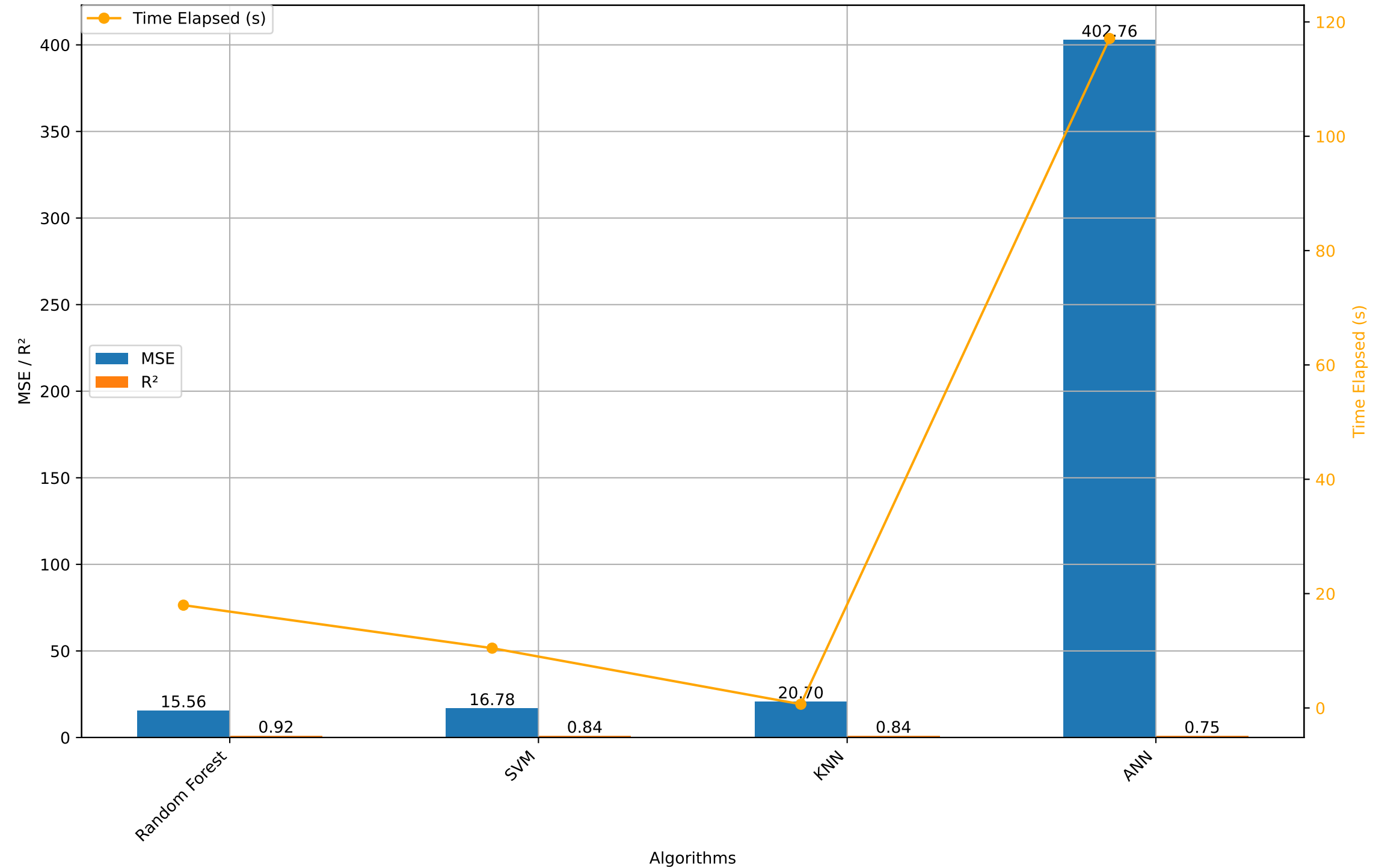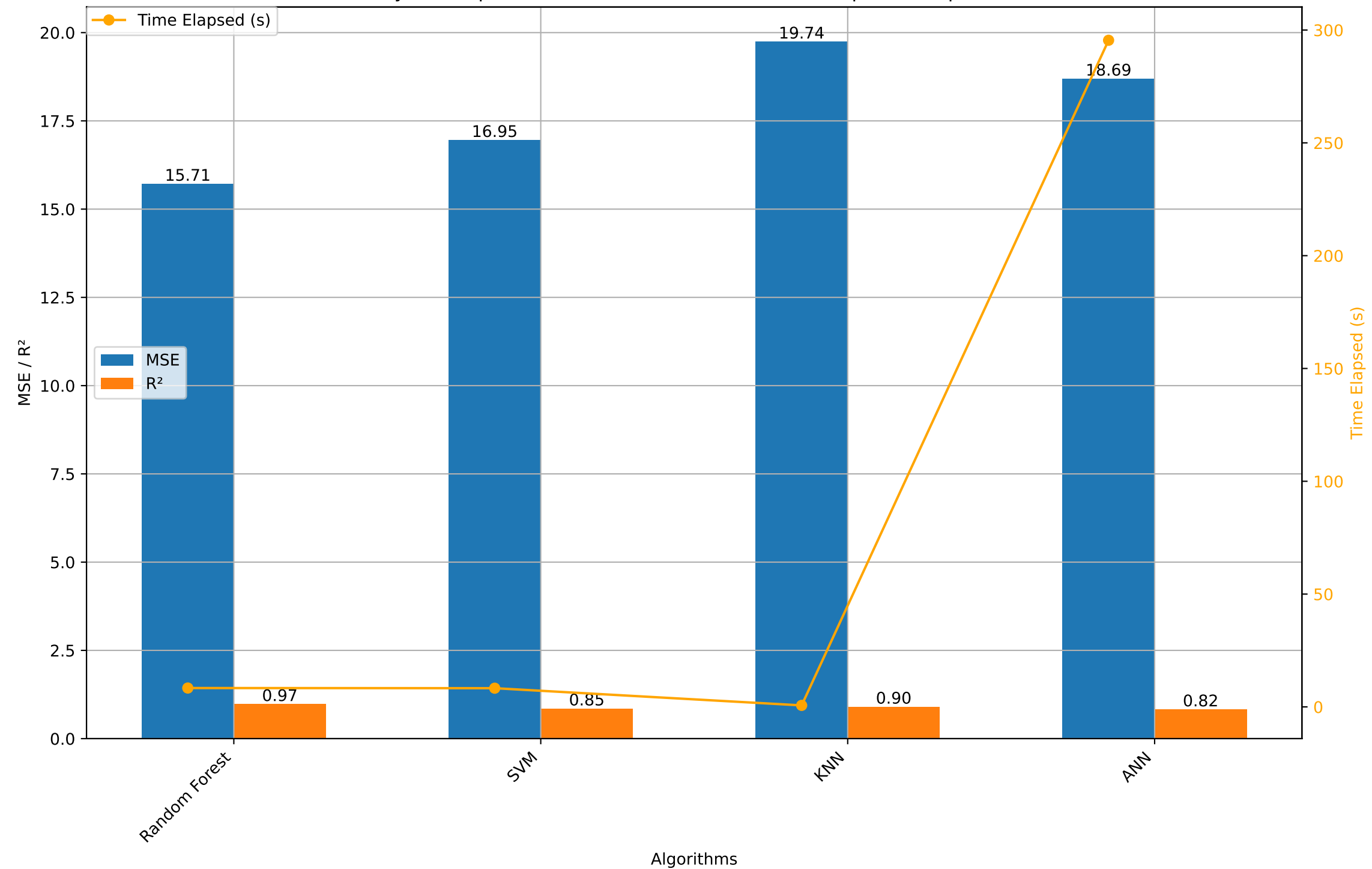
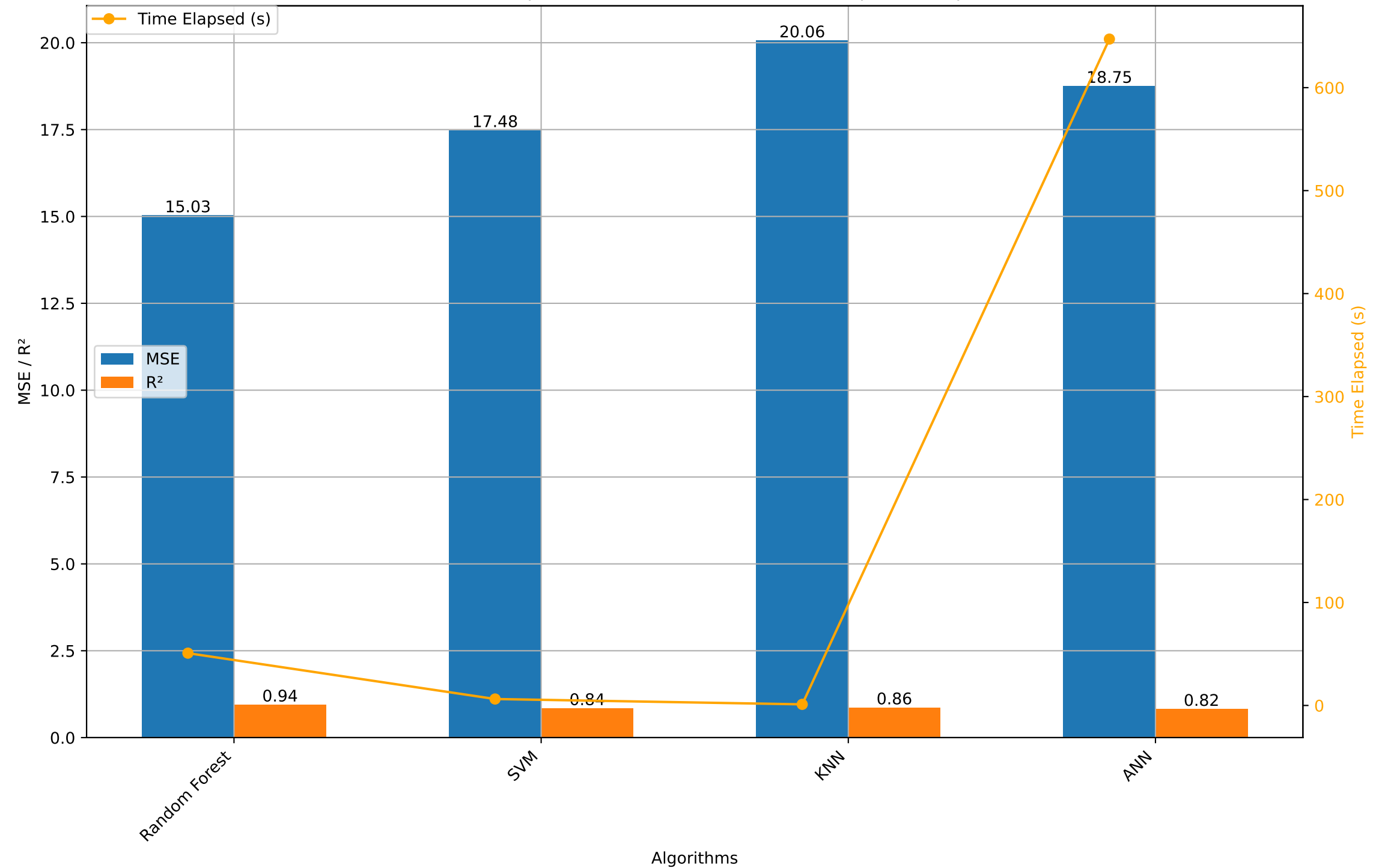Bayesian Optimization - MSE, R² and Time Elapsed Comparison

Sequential Model-Based Optimization (skopt) - MSE, R² and Time Elapsed Comparison
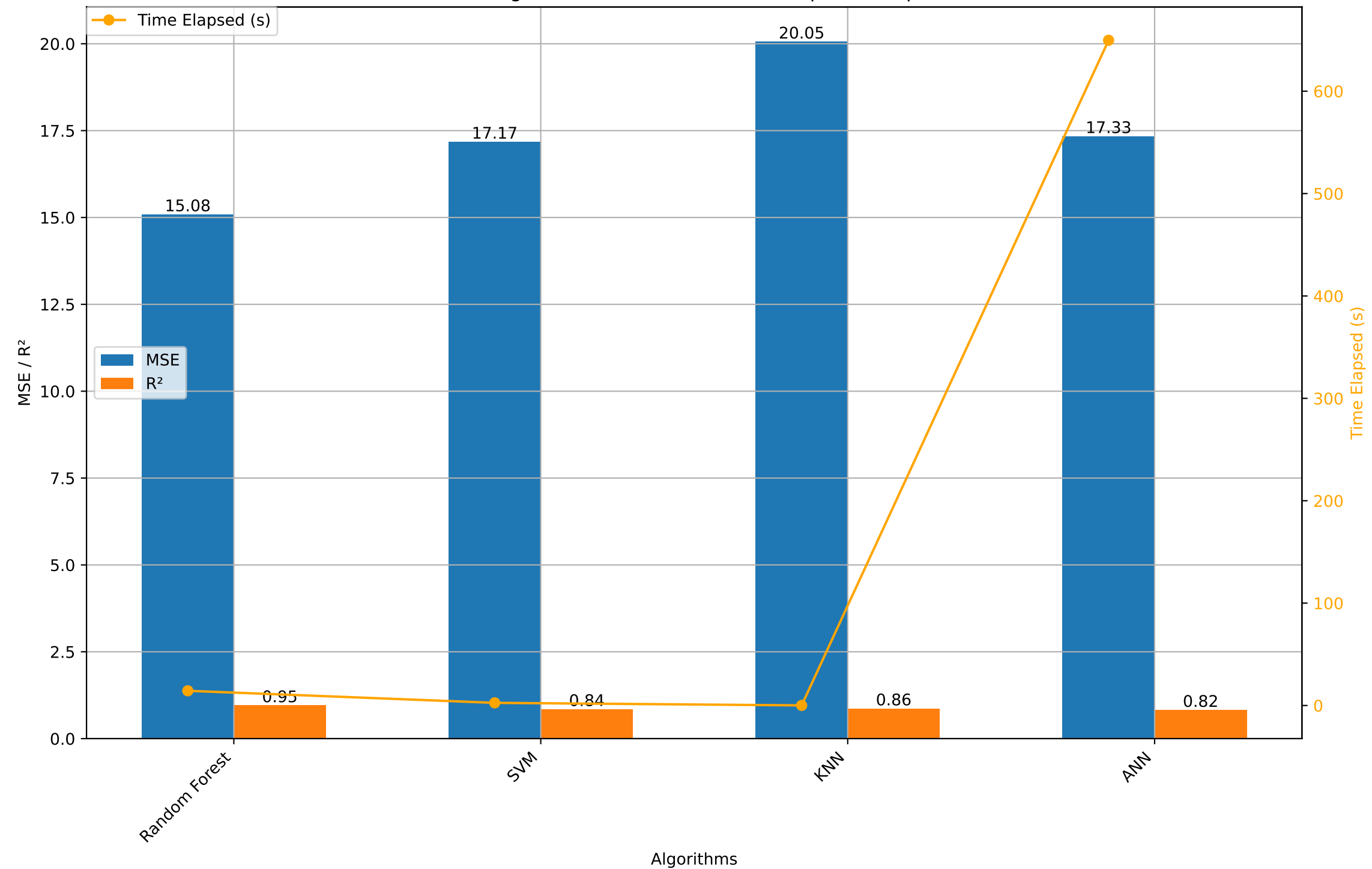
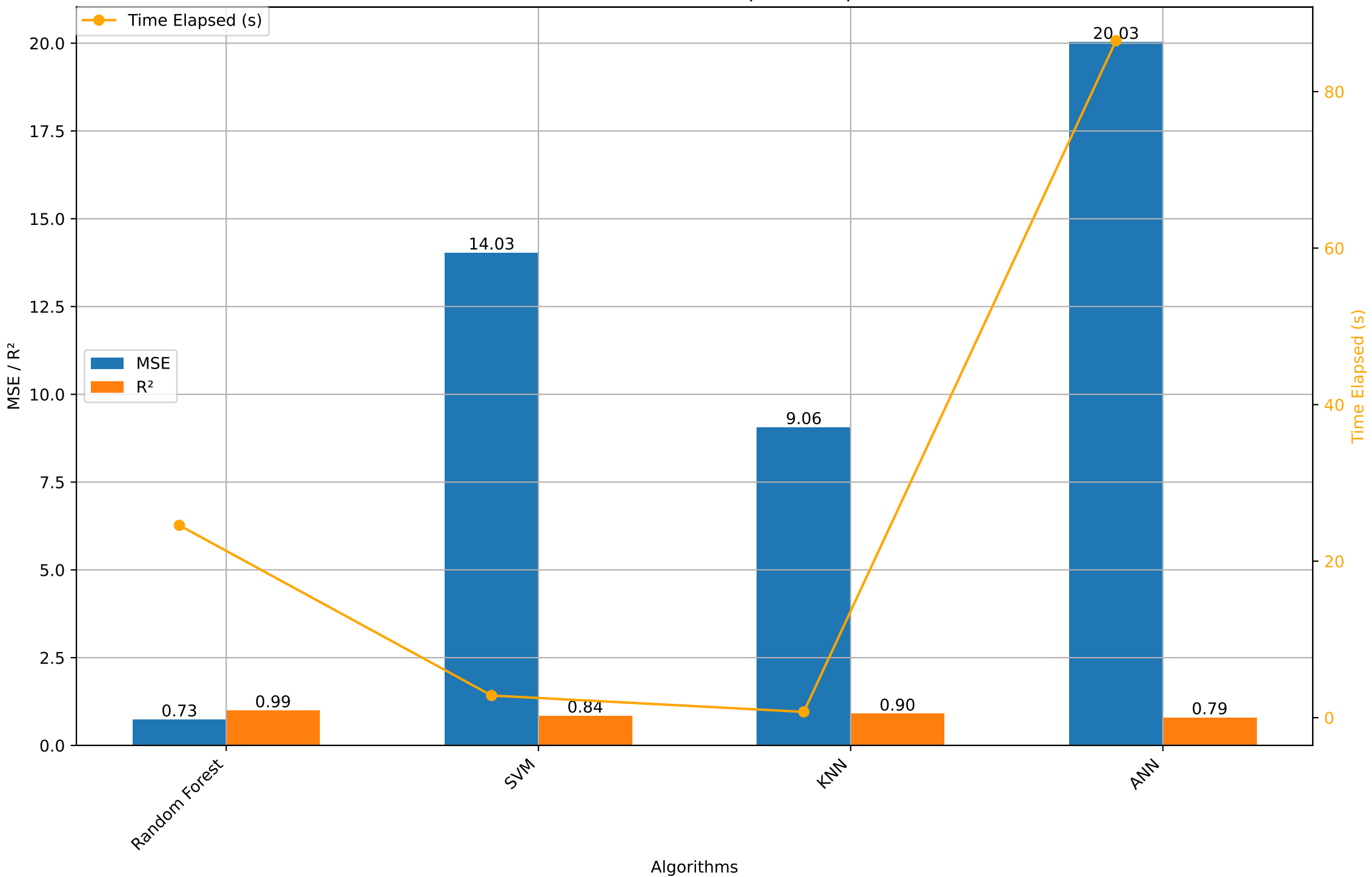Bayesian Optimization TPE - MSE, R² and Time Elapsed Comparison

Particle Swarm Optimization - MSE, R² and Time Elapsed Comparison

Genetic Algorithm - MSE, R² and Time Elapsed Comparison

TPOT - MSE, R² 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	17.040423647169103	Random Forest	0.8042126822543961	KNN	0.08
Grid Search	Random Forest	15.764334243450495	Random Forest	0.9762602588332496	KNN	0.08
Random Search	Random Forest	16.395330032035677	Random Forest	0.9270525478119064	KNN	0.1
Hyperband	Random Forest	14.028243188079012	Random Forest	0.9707210119673486	KNN	1.06
Bayesian Optimization	Random Forest	14.47790703600512	Random Forest	0.946811777600216	KNN	0.91
Sequential Model-Based Optimization (skopt)	Random Forest	15.564480203399777	Random Forest	0.9230214460262004	KNN	0.65
Bayesian Optimization TPE	Random Forest	15.710446933338307	Random Forest	0.9709782834903276	KNN	0.67
Particle Swarm Optimization	Random Forest	15.02540970543795	Random Forest	0.943824938604891	KNN	1.08
Genetic Algorithm	Random Forest	15.08423800632838	Random Forest	0.953006843826734	KNN	0.11
TPOT	Random Forest	0.7318019624690483	Random Forest	0.9917479964614035	KNN	0.74

Overall Best Algorithm and Procedure:

Procedure	MSE Winner	MSE Value	R² Winner	R² Value	Time Winner	Time Elapsed (s)
TPOT	Random Forest	0.7318019624690483	Random Forest	0.9917479964614035	KNN	0.74