

Supplemental data 1: Summary of Xgboost algorithm developed

```
##### xgb.Booster
```

```
raw: 426.3 Kb
```

```
call:
```

```
xgboost::xgb.train(params = list(eta = 0.0514251921126008, max_depth = 2L,  
  gamma = 0, colsample_bytree = 1, colsample_bynode = 0.545454545454545,  
  min_child_weight = 23L, subsample = 1, objective = "reg:squarederror"),  
  data = x$data, nrounds = 597L, watchlist = x$watchlist, verbose = 0,  
  nthread = 1)
```

```
params (as set within xgb.train):
```

```
eta = "0.0514251921126008", max_depth = "2", gamma = "0", colsample_bytree = "1",  
colsample_bynode = "0.545454545454545", min_child_weight = "23", subsample = "1",  
objective = "reg:squarederror", nthread = "1", validate_parameters = "TRUE"
```

```
callbacks:
```

```
cb.evaluation.log()
```

```
# of features: 11
```

```
niter: 597
```

```
nfeatures : 11
```

```
evaluation_log:
```

```
  iter training_rmse  
    1   0.837250  
    2   0.801830
```

```
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```

```
 596   0.148870  
 597   0.148825
```