

# GBM Parameters: Scoring & Stopping

- score\_each\_iteration: score model after each tree (default: false)
  score\_tree\_interval: score model after n trees
- stopping\_rounds: early stop if stopping metric's moving average does not improve for this many rounds
- **stopping\_metric**: metric for early stopping (AUTO: logloss for classification, deviance for regression) Must be one of: "AUTO", "deviance", "logloss", "MSE", "RMSE", "MAE", "RMSLE", "AUC", "lift\_top\_group", "misclassification", "mean\_per\_class\_error". Defaults to AUTO.
- "mean\_per\_class\_error". Defaults to AUTO.

   stopping\_tolerance: Relative tolerance for metric-based stopping criterion (stop if relative improvement is not at least this much) Defaults to 0.001.
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   max\_runtime\_secs: maximum runtime to allow for model building (default: 0, disabled)

### (same as RF)

### GBM Parameters: Cross Validation

(same as RF)

- nfolds: number of folds for N-fold cross-validation (default: 0, disabled)
- **keep\_cross\_validation\_predictions**: keep the predictions of the cross-validation models (default: False)
- keep\_cross\_validation\_fold\_assignment: keep the cross-validation fold assignment (default: False)
- **fold\_assignment**: cross-validation fold assignment scheme, if fold column is not specified. The "Stratified" option will stratify the folds based on the response variable, for classification problems. Must be one of: "AUTO", "Random", "Modulo", "Stratified". Defaults to AUTO.
- **fold\_column**: column with cross-validation fold index assignment per observation.



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(same as RF)

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- **stopping\_metric**: metric for early stopping (AUTO: logloss for classification, deviance for regression) Must be one of: "AUTO", "deviance", "logloss", "MSE", "RMSE", "MAE", "RMSLE", "AUC", "lift\_top\_group", "misclassification", "mean\_per\_class\_error". Defaults to AUTO.
- **stopping\_tolerance**: Relative tolerance for metric-based stopping criterion (stop if relative improvement is not at least this much) Defaults to 0.001.
- max\_runtime\_secs: maximum runtime to allow for model building (default: 0, disabled)

