

tf.contrib.learn.Evaluable

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Class **Evaluable**Defined in [tensorflow/contrib/learn/python/learn/evaluable.py](#).See the guide: [Learn \(contrib\) > Estimators](#)Interface for objects that are evaluable by, e.g., **Experiment**.

Properties

model_dir

Returns a path in which the eval process will look for checkpoints.

Methods

evaluate

```
evaluate(  
    x=None,  
    y=None,  
    input_fn=None,  
    feed_fn=None,  
    batch_size=None,  
    steps=None,  
    metrics=None,  
    name=None,  
    checkpoint_path=None,  
    hooks=None  
)
```

Evaluates given model with provided evaluation data.

Stop conditions - we evaluate on the given input data until one of the following: - If **steps** is provided, and **steps** batches of size **batch_size** are processed. - If **input_fn** is provided, and it raises an end-of-input exception (**OutOfRangeError** or **StopIteration**). - If **x** is provided, and all items in **x** have been processed.

The return value is a dict containing the metrics specified in **metrics**, as well as an entry **global_step** which contains the value of the global step for which this evaluation was performed.

Args:

- `x` : Matrix of shape `[n_samples, n_features...]` or dictionary of many matrices containing the input samples for fitting the model. Can be iterator that returns arrays of features or dictionary of array of features. If set, `input_fn` must be `None`.
- `y` : Vector or matrix `[n_samples]` or `[n_samples, n_outputs]` containing the label values (class labels in classification, real numbers in regression) or dictionary of multiple vectors/matrices. Can be iterator that returns array of targets or dictionary of array of targets. If set, `input_fn` must be `None`. Note: For classification, label values must be integers representing the class index (i.e. values from 0 to `n_classes-1`).
- `input_fn` : Input function returning a tuple of: features - Dictionary of string feature name to `Tensor` or `Tensor`. labels - `Tensor` or dictionary of `Tensor` with labels. If `input_fn` is set, `x`, `y`, and `batch_size` must be `None`. If `steps` is not provided, this should raise `OutOfRangeError` or `StopIteration` after the desired amount of data (e.g., one epoch) has been provided. See "Stop conditions" above for specifics.
- `feed_fn` : Function creating a feed dict every time it is called. Called once per iteration. Must be `None` if `input_fn` is provided.
- `batch_size` : minibatch size to use on the input, defaults to first dimension of `x`, if specified. Must be `None` if `input_fn` is provided.
- `steps` : Number of steps for which to evaluate model. If `None`, evaluate until `x` is consumed or `input_fn` raises an end-of-input exception. See "Stop conditions" above for specifics.
- `metrics` : Dict of metrics to run. If `None`, the default metric functions are used; if {}, no metrics are used. Otherwise, `metrics` should map friendly names for the metric to a `MetricSpec` object defining which model outputs to evaluate against which labels with which metric function. Metric ops should support streaming, e.g., returning `update_op` and `value` tensors. For example, see the options defined in `../../../../metrics/python/ops/metrics_ops.py`.
- `name` : Name of the evaluation if user needs to run multiple evaluations on different data sets, such as on training data vs test data.
- `checkpoint_path` : Path of a specific checkpoint to evaluate. If `None`, the latest checkpoint in `model_dir` is used.
- `hooks` : List of `SessionRunHook` subclass instances. Used for callbacks inside the evaluation call.

Returns:

Returns `dict` with evaluation results.

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