tf.contrib.learn.multi_label_head

```
multi_label_head(
    n_classes,
    label_name=None,
    weight_column_name=None,
    enable_centered_bias=False,
    head_name=None,
    thresholds=None,
    metric_class_ids=None,
    loss_fn=None
)
```

Defined in `tensorflow/contrib/learn/python/learn/estimators/head.py`.

Creates a Head for multi label classification.

Multi-label classification handles the case where each example may have zero or more associated labels, from a discrete set. This is distinct from `multi_class_head` which has exactly one label from a discrete set.

This head by default uses sigmoid cross entropy loss, which expects as input a multi-hot tensor of shape `(batch_size, num_classes)`.

Args:

- `n_classes` : Integer, number of classes, must be >= 2
- `label_name` : String, name of the key in label dict. Can be null if label is a tensor (single headed models).
- `weight_column_name` : A string defining feature column name representing weights. It is used to down weight or boost examples during training. It will be multiplied by the loss of the example.
- `enable_centered_bias` : A bool. If True, estimator will learn a centered bias variable for each class. Rest of the model structure learns the residual after centered bias.
- `head_name` : name of the head. If provided, predictions, summary and metrics keys will be suffixed by `"/" + head_name` and the default variable scope will be `head_name`.
- `thresholds` : thresholds for eval metrics, defaults to [.5]
- `metric_class_ids` : List of class IDs for which we should report per-class metrics. Must all be in the range `[0, n_classes)`.
- `loss_fn` : Optional function that takes (`labels`, `logits`, `weights`) as parameter and returns a weighted scalar loss. `weights` should be optional. See `tf.losses`

Returns:

An instance of `Head` for multi label classification.

Raises:

- `ValueError` : If n_classes is < 2
- `ValueError` : If loss_fn does not have expected signature.

Stay Connected

Blog

GitHub

Twitter

Support

Issue Tracker

Release Notes

Stack Overflow

English

Terms | Privacy