tf.contrib.gan.losses.wargs.acgan_discriminator_loss

```
acgan_discriminator_loss(
    discriminator_real_classification_logits,
    discriminator_gen_classification_logits,
    one_hot_labels,
    label_smoothing=0.0,
    real_weights=1.0,
    generated_weights=1.0,
    scope=None,
    loss_collection=tf.GraphKeys.LOSSES,
    reduction=losses.Reduction.SUM_BY_NONZERO_WEIGHTS,
    add_summaries=False
)
```

Defined in `tensorflow/contrib/gan/python/losses/python/losses_impl.py` .

ACGAN loss for the discriminator.

The ACGAN loss adds a classification loss to the conditional discriminator. Therefore, the discriminator must output a tuple consisting of (1) the real/fake prediction and (2) the logits for the classification (usually the last conv layer, flattened).

For more details: ACGAN: https://arxiv.org/abs/1610.09585

Args:

- `discriminator_real_classification_logits` : Classification logits for real data.
- `discriminator_gen_classification_logits` : Classification logits for generated data.
- `one_hot_labels` : A Tensor holding one-hot labels for the batch.
- `label_smoothing` : A float in [0, 1]. If greater than 0, smooth the labels for "discriminator on real data" as suggested in https://arxiv.org/pdf/1701.00160
- `real_weights` : Optional `Tensor` whose rank is either 0, or the same rank as `discriminator_real_outputs` , and must be broadcastable to `discriminator_real_outputs` (i.e., all dimensions must be either `1` , or the same as the corresponding dimension).
- `generated_weights` : Same as `real_weights` , but for `discriminator_gen_classification_logits` .
- `scope` : The scope for the operations performed in computing the loss.
- `loss_collection` : collection to which this loss will be added.
- `reduction` : A `tf.losses.Reduction` to apply to loss.
- `add_summaries` : Whether or not to add summaries for the loss.

Returns:

A loss Tensor. Shape depends on `reduction` .

Raises:

- `TypeError` : If the discriminator does not output a tuple.

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