tf.contrib.gan.losses.wargs.combine_adversarial_loss

```
combine_adversarial_loss(
    main_loss,
    adversarial_loss,
    weight_factor=None,
    gradient_ratio=None,
    gradient_ratio_epsilon=1e-06,
    variables=None,
    scalar_summaries=True,
    gradient_summaries=True,
    scope=None
)
```

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

Utility to combine main and adversarial losses.

This utility combines the main and adversarial losses in one of two ways. 1) Fixed coefficient on adversarial loss. Use `weight_factor` in this case. 2) Fixed ratio of gradients. Use `gradient_ratio` in this case. This is often used to make sure both losses affect weights roughly equally, as in https://arxiv.org/pdf/1705.05823.

One can optionally also visualize the scalar and gradient behavior of the losses.

Args:

- `main_loss`: A floating scalar Tensor indicating the main loss.
- `adversarial_loss`: A floating scalar Tensor indication the adversarial loss.
- `weight_factor`: If not `None`, the coefficient by which to multiply the adversarial loss. Exactly one of this and `gradient_ratio` must be non-None.
- `gradient_ratio`: If not `None`, the ratio of the magnitude of the gradients. Specifically, gradient_ratio = grad_mag(main_loss) / grad_mag(adversarial_loss) Exactly one of this and `weight_factor` must be non-None.
- `gradient_ratio_epsilon`: An epsilon to add to the adversarial loss coefficient denominator, to avoid division-by-zero.
- `variables`: List of variables to calculate gradients with respect to. If not present, defaults to all trainable variables.
- `scalar_summaries`: Create scalar summaries of losses.
- `gradient_summaries`: Create gradient summaries of losses.
- `scope`: Optional name scope.

Returns:

A floating scalar Tensor indicating the desired combined loss.

Raises:

- `ValueError`: Malformed input.

Last updated November 2, 2017.