### TencorFlow

TensorFlow API r1.4

tf.contrib.legacy\_seq2seq.sequence\_loss

```
sequence_loss(
   logits,
   targets,
   weights,
   average_across_timesteps=True,
   average_across_batch=True,
   softmax_loss_function=None,
   name=None
)
```

Defined in tensorflow/contrib/legacy\_seq2seq/python/ops/seq2seq.py.

Weighted cross-entropy loss for a sequence of logits, batch-collapsed.

## Args:

- logits: List of 2D Tensors of shape [batch\_size x num\_decoder\_symbols].
- targets: List of 1D batch-sized int32 Tensors of the same length as logits.
- weights: List of 1D batch-sized float-Tensors of the same length as logits.
- average\_across\_timesteps: If set, divide the returned cost by the total label weight.
- average\_across\_batch: If set, divide the returned cost by the batch size.
- softmax\_loss\_function: Function (labels, logits) -> loss-batch to be used instead of the standard softmax (the default if this is None). Note that to avoid confusion, it is required for the function to accept named arguments.
- name: Optional name for this operation, defaults to "sequence\_loss".

# Returns:

A scalar float Tensor: The average log-perplexity per symbol (weighted).

### Raises:

ValueError: If len(logits) is different from len(targets) or len(weights).

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