

tf.contrib.legacy_seq2seq.embedding_rnn_decoder

```
embedding_rnn_decoder(  
    decoder_inputs,  
    initial_state,  
    cell,  
    num_symbols,  
    embedding_size,  
    output_projection=None,  
    feed_previous=False,  
    update_embedding_for_previous=True,  
    scope=None  
)
```

Defined in [tensorflow/contrib/legacy_seq2seq/python/ops/seq2seq.py](#).

RNN decoder with embedding and a pure-decoding option.

Args:

- `decoder_inputs`: A list of 1D batch-sized int32 Tensors (decoder inputs).
- `initial_state`: 2D Tensor [batch_size x cell.state_size].
- `cell`: `tf.nn.rnn_cell.RNNCell` defining the cell function.
- `num_symbols`: Integer, how many symbols come into the embedding.
- `embedding_size`: Integer, the length of the embedding vector for each symbol.
- `output_projection`: None or a pair (W, B) of output projection weights and biases; W has shape [output_size x num_symbols] and B has shape [num_symbols]; if provided and `feed_previous=True`, each fed previous output will first be multiplied by W and added B.
- `feed_previous`: Boolean; if True, only the first of `decoder_inputs` will be used (the "GO" symbol), and all other decoder inputs will be generated by: `next = embedding_lookup(embedding, argmax(previous_output))`. In effect, this implements a greedy decoder. It can also be used during training to emulate <http://arxiv.org/abs/1506.03099>. If False, `decoder_inputs` are used as given (the standard decoder case).
- `update_embedding_for_previous`: Boolean; if False and `feed_previous=True`, only the embedding for the first symbol of `decoder_inputs` (the "GO" symbol) will be updated by back propagation. Embeddings for the symbols generated from the decoder itself remain unchanged. This parameter has no effect if `feed_previous=False`.
- `scope`: `VariableScope` for the created subgraph; defaults to "embedding_rnn_decoder".

Returns:

A tuple of the form (outputs, state), where: `outputs`: A list of the same length as `decoder_inputs` of 2D Tensors. The output is of shape [batch_size x cell.output_size] when `output_projection` is not None (and represents the dense representation of predicted tokens). It is of shape [batch_size x num_decoder_symbols] when `output_projection` is None. `state`: The state of each decoder cell in each time-step. This is a list with length `len(decoder_inputs)` – one item for each time-step. It is a 2D Tensor of shape [batch_size x cell.state_size].

Raises:

- `ValueError` : When `output_projection` has the wrong shape.

Except as otherwise noted, the content of this page is licensed under the [Creative Commons Attribution 3.0 License](#), and code samples are licensed under the [Apache 2.0 License](#). For details, see our [Site Policies](#). Java is a registered trademark of Oracle and/or its affiliates.

Last updated November 2, 2017.

Stay Connected

[Blog](#)

[GitHub](#)

[Twitter](#)

Support

[Issue Tracker](#)

[Release Notes](#)

[Stack Overflow](#)

English

[Terms](#) | [Privacy](#)