

Module: tf.contrib.rnn

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Defined in [tensorflow/contrib/rnn/__init__.py](#).

RNN Cells and additional RNN operations.

See [RNN and Cells \(contrib\)](#) guide.

Classes

class [AttentionCellWrapper](#) : Basic attention cell wrapper.

class [BasicLSTMCell](#) : Basic LSTM recurrent network cell.

class [BasicRNNCell](#) : The most basic RNN cell.

class [BidirectionalGridLSTMCell](#) : Bidirectional GridLstm cell.

class [CompiledWrapper](#) : Wraps step execution in an XLA JIT scope.

class [Conv1DLSTMCell](#) : 1D Convolutional LSTM recurrent network cell.

class [Conv2DLSTMCell](#) : 2D Convolutional LSTM recurrent network cell.

class [Conv3DLSTMCell](#) : 3D Convolutional LSTM recurrent network cell.

class [ConvLSTMCell](#) : Convolutional LSTM recurrent network cell.

class [CoupledInputForgetGateLSTMCell](#) : Long short-term memory unit (LSTM) recurrent network cell.

class [DeviceWrapper](#) : Operator that ensures an RNNCell runs on a particular device.

class [DropoutWrapper](#) : Operator adding dropout to inputs and outputs of the given cell.

class [EmbeddingWrapper](#) : Operator adding input embedding to the given cell.

class [FusedRNNCell](#) : Abstract object representing a fused RNN cell.

class [FusedRNNCellAdaptor](#) : This is an adaptor for RNNCell classes to be used with [FusedRNNCell](#).

class [GLSTMCell](#) : Group LSTM cell (G-LSTM).

class [GRUBlockCell](#) : Block GRU cell implementation.

class [GRUBlockCellV2](#) : Temporary GRUBlockCell impl with a different variable naming scheme.

class [GRUCell](#) : Gated Recurrent Unit cell (cf. <http://arxiv.org/abs/1406.1078>).

class [GridLSTMCell](#) : Grid Long short-term memory unit (LSTM) recurrent network cell.

class [HighwayWrapper](#) : RNNCell wrapper that adds highway connection on cell input and output.

class InputProjectionWrapper : Operator adding an input projection to the given cell.

class IntersectionRNNCell : Intersection Recurrent Neural Network (+RNN) cell.

class LSTMBlockCell : Basic LSTM recurrent network cell.

class LSTMBlockFusedCell : FusedRNNCell implementation of LSTM.

class LSTMBlockWrapper : This is a helper class that provides housekeeping for LSTM cells.

class LSTMCell : Long short-term memory unit (LSTM) recurrent network cell.

class LSTMStateTuple : Tuple used by LSTM Cells for **state_size** , **zero_state** , and output state.

class LayerNormBasicLSTMCell : LSTM unit with layer normalization and recurrent dropout.

class MultiRNNCell : RNN cell composed sequentially of multiple simple cells.

class NASCell : Neural Architecture Search (NAS) recurrent network cell.

class OutputProjectionWrapper : Operator adding an output projection to the given cell.

class PhasedLSTMCell : Phased LSTM recurrent network cell.

class RNNCell : Abstract object representing an RNN cell.

class ResidualWrapper : RNNCell wrapper that ensures cell inputs are added to the outputs.

class TimeFreqLSTMCell : Time-Frequency Long short-term memory unit (LSTM) recurrent network cell.

class TimeReversedFusedRNN : This is an adaptor to time-reverse a FusedRNNCell.

class UGRNNCell : Update Gate Recurrent Neural Network (UGRNN) cell.

Functions

stack_bidirectional_dynamic_rnn(...) : Creates a dynamic bidirectional recurrent neural network.

stack_bidirectional_rnn(...) : Creates a bidirectional recurrent neural network.

static_bidirectional_rnn(...) : Creates a bidirectional recurrent neural network.

static_rnn(...) : Creates a recurrent neural network specified by RNNCell **cell** .

static_state_saving_rnn(...) : RNN that accepts a state saver for time-truncated RNN calculation.

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