
tf-mdp Documentation

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1.1 Subpackages

1.1.1 tfmdp.model package

1.1.1.1 Subpackages

tfmdp.model.cell package

Submodules

tfmdp.model.cell.basic_cell module

Module contents

1.1.1.2 Submodules

1.1.1.3 tfmdp.model.sequential.montecarlo module

1.1.1.4 tfmdp.model.sequential.mrm module

1.1.1.5 Module contents

1.1.2 tfmdp.planning package

1.1.2.1 Submodules

1.1.2.2 tfmdp.planning.pdplanner module

1.1.2.3 tfmdp.planning.planner module

1.1.2.4 Module contents

1.1.3 tfmdp.policy package

1.1.3.1 Subpackages

tfmdp.policy.layers package

Submodules

tfmdp.policy.layers.action_layer module

class tfmdp.policy.layers.action_layer.**ActionLayer** (*action_size: int*)

Bases: tensorflow.python.layers.base.Layer

ActionLayer should be used as the output layer in a DRP.

It generates multi-head dense output layers with the same shape as action fluents. Otionally, it restricts the output tensors based on action bounds.

Parameters **action_size** (*Sequence[Sequence[int]]*) – The list of action fluent sizes.

_get_output_tensor (*tensor: tensorflow.python.framework.ops.Tensor, bounds: Tuple[Optional[tensorflow.python.framework.ops.Tensor], Optional[tensorflow.python.framework.ops.Tensor]]*) → *tensorflow.python.framework.ops.Tensor*

Returns the value constrained output tensor.

Parameters

- **tensor** (*tf.Tensor*) – The layer’s output tensor corresponding to an action fluent.
- **bounds** (*Tuple[Optional[tf.Tensor], Optional[tf.Tensor]]*) – The action fluent bounds.

Returns the constrained output tensor.

Return type (tf.Tensor)

call (*inputs*: `tensorflow.python.framework.ops.Tensor`, *action_bounds*: `Optional[Sequence[Tuple[Optional[tensorflow.python.framework.ops.Tensor], Optional[tensorflow.python.framework.ops.Tensor]]]]` = `None`) → `Sequence[tensorflow.python.framework.ops.Tensor]` *Optional* *Se-*
 Returns the tensors of the multi-head layer's output.

Parameters

- **inputs** (`tf.Tensor`) – A hidden layer's output.
- **action_bounds** (`Optional[Sequence[Tuple[Optional[tf.Tensor], Optional[tf.Tensor]]]]`) – The action bounds.

Returns A tuple of action tensors.

Return type `Sequence[tf.Tensor]`

trainable_variables

Returns the list of all layer variables/weights.

tfmdp.policy.layers.state_layer module

class `tfmdp.policy.layers.state_layer.StateLayer` (*input_layer_norm*: `bool = False`)

Bases: `tensorflow.python.layers.base.Layer`

StateLayer should be used as an input layer in a DRP.

It flattens each state fluent and returns a single concatenated tensor.

Parameters **input_layer_norm** (`bool`) – The boolean flag for enabling layer normalization.

call (*inputs*: `Sequence[tensorflow.python.framework.ops.Tensor]`) → `tensorflow.python.framework.ops.Tensor` *tensor-*
 Returns the concatenation of all state fluent tensors previously flatten.

Parameters **inputs** (`Sequence[tf.Tensor]`) – A tuple of state fluent tensors.

Returns A single output tensor.

Return type `tf.Tensor`

trainable_variables

Returns the list of all layer variables/weights.

Module contents

1.1.3.2 Submodules

1.1.3.3 tfmdp.policy.drp module

1.1.3.4 tfmdp.policy.feedforward module

1.1.3.5 Module contents

1.2 Submodules

1.3 tfmdp.utils module

`tfmdp.utils.get_params_string` (*config: Dict*) → str
Returns a canonical configuration string by concatenating its parameters.

1.4 Module contents

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