
pyTsetlinMachine

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1.1 pyTsetlinMachine package

1.1.1 Submodules

1.1.2 pyTsetlinMachine.tm module

```
class pyTsetlinMachine.tm.CConvolutionalTsetlinMachine
    Bases: _ctypes.Structure

class pyTsetlinMachine.tm.CEmbeddingTsetlinMachine
    Bases: _ctypes.Structure

class pyTsetlinMachine.tm.CIndexedTsetlinMachine
    Bases: _ctypes.Structure

class pyTsetlinMachine.tm.CMultiClassConvolutionalTsetlinMachine
    Bases: _ctypes.Structure

class pyTsetlinMachine.tm.ConvolutionalEmbeddingTsetlinMachine2D(number_of_clauses,
                                                                T, s,
                                                                patch_dim,
                                                                boost_true_positive_feedback=1,
                                                                num-
                                                                ber_of_state_bits=8,
                                                                weighted_clauses=False,
                                                                s_range=False)

    Bases: object

    clause_sharing (class_1, class_2)

    fit (X, Y, epochs=100, incremental=False)

    get_state ()

    predict (X)
```

```
    set_state (state)
    ta_action (clause, ta)
    ta_state (clause, ta)
    transform (X, inverted=True)
class pyTsetlinMachine.tm.EmbeddingTsetlinMachine (number_of_clauses, T, s,
                                                    boost_true_positive_feedback=1,
                                                    number_of_state_bits=8,
                                                    weighted_clauses=False,
                                                    s_range=False)

Bases: object

    clause_sharing (class_1, class_2)
    fit (X, Y, epochs=100, incremental=False)
    get_state ()
    predict (X)
    set_state (state)
    ta_action (clause, ta)
    ta_state (clause, ta)
    transform (X, inverted=True)
class pyTsetlinMachine.tm.MultiClassConvolutionalTsetlinMachine2D (number_of_clauses,
                                                                    T, s,
                                                                    patch_dim,
                                                                    boost_true_positive_feedback=1,
                                                                    number_of_state_bits=8,
                                                                    append_negated=True,
                                                                    weighted_clauses=False,
                                                                    s_range=False,
                                                                    clause_drop_p=0.0,
                                                                    literal_drop_p=0.0)

Bases: object

This class creates a convolutional Tsetlin machine

    fit (X, Y, epochs=100, incremental=False)
    get_state ()
    predict (X)
    set_state (state_list)
    ta_action (mc_tm_class, clause, ta)
    ta_state (mc_tm_class, clause, ta)
    transform (X, inverted=True)
```

```

class pyTsetlinMachine.tm.MultiClassTsetlinMachine (number_of_clauses, T, s,
                                                    boost_true_positive_feedback=1,
                                                    number_of_state_bits=8,
                                                    indexed=True, ap-
                                                    pend_negated=True,
                                                    weighted_clauses=False,
                                                    s_range=False,
                                                    clause_drop_p=0.0, lit-
                                                    eral_drop_p=0.0)

```

Bases: object

Docstring for class MultiClassTsetlinMachine.

fit (*X, Y, epochs=100, incremental=False*)

get_state ()

predict (*X*)

set_state (*state_list*)

ta_action (*mc_tm_class, clause, ta*)

ta_state (*mc_tm_class, clause, ta*)

transform (*X, inverted=True*)

```

class pyTsetlinMachine.tm.RegressionTsetlinMachine (number_of_clauses, T, s,
                                                    boost_true_positive_feedback=1,
                                                    number_of_state_bits=8,
                                                    weighted_clauses=False,
                                                    s_range=False)

```

Bases: object

fit (*X, Y, epochs=100, incremental=False*)

get_state ()

predict (*X*)

set_state (*state*)

pyTsetlinMachine.tm.ctm_pointer

alias of pyTsetlinMachine.tm.LP_CConvolutionalTsetlinMachine

pyTsetlinMachine.tm.etsm_pointer

alias of pyTsetlinMachine.tm.LP_CEmbeddingTsetlinMachine

pyTsetlinMachine.tm.itm_pointer

alias of pyTsetlinMachine.tm.LP_CIndexedTsetlinMachine

pyTsetlinMachine.tm.mc_ctm_pointer

alias of pyTsetlinMachine.tm.LP_CMultiClassConvolutionalTsetlinMachine

1.1.3 pyTsetlinMachine.tools module

```

class pyTsetlinMachine.tools.Binarizer (max_bits_per_feature=25)

```

Bases: object

fit (*X*)

transform (*X*)

1.1.4 Module contents

CHAPTER 2

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