
PyTsetlinMachineCUDA Documentation

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CHAPTER 1

Quickstart

CHAPTER 2

Tsetlin Machine

```
class PyTsetlinMachineCUDA.tm.CommonTsetlinMachine (number_of_clauses, T, s,  
                                                    boost_true_positive_feedback=1,  
                                                    number_of_state_bits=8,  
                                                    append_negated=True,  
                                                    max_weight=1, grid=(208, 1,  
1), block=(128, 1, 1))  
  
    allocate_gpu_memory (number_of_examples)  
    encode_X (X, encoded_X_gpu)  
    ta_action (mc_tm_class, clause, ta)  
    transform (X)  
  
class PyTsetlinMachineCUDA.tm.MultiClassConvolutionalTsetlinMachine2D (number_of_clauses,  
                                                                           T, s,  
                                                                           patch_dim,  
                                                                           boost_true_positive_feedback=  
num-  
                                                                           ber_of_state_bits=8,  
                                                                           ap-  
                                                                           pend_negated=True,  
                                                                           max_weight=1,  
                                                                           grid=(208,  
1, 1),  
                                                                           block=(128,  
1, 1))  
  
    This class ...  
    fit (X, Y, epochs=100, incremental=False, batch_size=100)  
    predict (X)  
    score (X)
```

```
class PyTsetlinMachineCUDA.tm.MultiClassTsetlinMachine (number_of_clauses, T, s,  
                                                    boost_true_positive_feedback=1,  
                                                    number_of_state_bits=8,  
                                                    append_negated=True,  
                                                    max_weight=1, grid=(208,  
                                                    1, 1), block=(128, 1, 1))  
  
    fit (X, Y, epochs=100, incremental=False, batch_size=100)  
    predict (X)  
    score (X)  
  
class PyTsetlinMachineCUDA.tm.RegressionTsetlinMachine (number_of_clauses, T, s,  
                                                    boost_true_positive_feedback=1,  
                                                    number_of_state_bits=8,  
                                                    append_negated=True,  
                                                    max_weight=1, grid=(208,  
                                                    1, 1), block=(128, 1, 1))  
  
    fit (X, Y, epochs=100, incremental=False, batch_size=100)  
    predict (X)  
  
class PyTsetlinMachineCUDA.tm.TsetlinMachine (number_of_clauses, T, s,  
                                                    boost_true_positive_feedback=1,  
                                                    number_of_state_bits=8, ap-  
                                                    pend_negated=True, max_weight=1,  
                                                    grid=(208, 1, 1), block=(128, 1, 1))  
  
    fit (X, Y, epochs=100, incremental=False, batch_size=100)  
    predict (X)  
    score (X)
```


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