

Algorithms

Table 1: Algorithms used in comparison with proposed method

Acronym	Full Name
ACF	Autocorrelation function
BN	Bayesian Network
BoP	Bag of Patterns
BOSS	Bag of SFA Symbols
C45	C4.5
CID.DTW	Complexity-Invariant Distance
DD.DTW	Derivative Dynamic Time Warping
DDTW_R1.1NN	Derivative Dynamic Time Warping with full warping window
DDTW_Rn.1NN	Derivative Dynamic Time Warping with warping window set through cross validation
DTD.C	Derivative Transform Distance
DTW.F	Dynamic Time Warping Features
DTW_R1.1NN	Dynamic Time Warping with full warping window
DTW_Rn.1NN	Dynamic Time Warping with warping window set through cross validation
EE	Elastic Ensemble
ERP.1NN	Edit Distance for Real Sequences.1-nearest neighbor algorithm
Euclidean.1NN	Euclidean.1-nearest neighbor algorithm
Flat-COTE	Flat Collective of Transformation-based Ensembles
FS	Fast Shapelet Tree
HIVE-COTE	Hierarchical Vote Collective of Transformation-Based Ensembles
LCSS.1NN	Longest Common Subsequence.1-nearest neighbor algorithm
LPS	Learned Pattern Similarity
LS	Learned Shapelets
MLP	Multi-layer Perceptron
MSM.1NN	Move-Split-Merge
NB	Naive Bayes
PS	Power Spectrum Transform
RandF	Random Forest
RotF	Rotation Forest
SAXVSM	Symbolic Aggregate approximation and Vector Space Model
ST	Shapelet Transform
SVML	Support Vector Machine with linear kernel
SVMQ	Support Vector Machine with quadratic kernel
TSBF	Time Series Bag of Features
TSF	Time Series Forest
TWE.1NN	Time Warp Edit Distance
WDDTW.1NN	Weighted Derivative Dynamic Time Warping
WDTW.1NN	Weighted Dynamic Time Warping

Categorized Algorithms

Table 2: Distance-based Methods

Acronym	Full Name
CID_DTW	Complexity-Invariant Distance
DD_DTW	Derivative Dynamic Time Warping
DDTW_R1_1NN	Derivative Dynamic Time Warping with full warping window
DDTW_Rn_1NN	Derivative Dynamic Time Warping with warping window set through cross validation
DTD_C	Derivative Transform Distance
DTW_F	Dynamic Time Warping Features
DTW_R1_1NN	Dynamic Time Warping with full warping window
DTW_Rn_1NN	Dynamic Time Warping with warping window set through cross validation
ERP_1NN	Edit Distance for Real Sequences_1-nearest neighbor algorithm
Euclidean_1NN	Euclidean_1-nearest neighbor algorithm
LCSS_1NN	Longest Common Subsequence_1-nearest neighbor algorithm
MSM_1NN	Move-Split-Merge
TWE_1NN	Time Warp Edit Distance
WDDTW_1NN	Weighted Derivative Dynamic Time Warping
WDTW_1NN	Weighted Dynamic Time Warping

Table 3: Dictionary-based Methods

Acronym	Full Name
BoP	Bag of Patterns
BOSS	Bag of SFA Symbols
SAXVSM	Symbolic Aggregate approximation and Vector Space Model
TSBF	Time Series Bag of Features

Table 4: Ensemble Methods

Acronym	Full Name
EE	Elastic Ensemble
Flat-COTE	Flat Collective of Transformation-based Ensembles
HIVE-COTE	Hierarchical Vote Collective of Transformation-Based Ensembles
RandF	Random Forest
RotF	Rotation Forest
TSF	Time Series Forest

Table 5: Shapelet-based Methods

Acronym	Full Name
FS	Fast Shapelet Tree
LS	Learned Shapelets
ST	Shapelet Transform
LPS	Learned Pattern Similarity

Table 6: Other Methods

Acronym	Full Name
ACF	Autocorrelation function
BN	Bayesian Network
C45	C4.5
MLP	Multi-layer Perceptron
NB	Naive Bayes
PS	Power Spectrum Transform
SVML	Support Vector Machine with linear kernel
SVMQ	Support Vector Machine with quadratic kernel