Most Important Features - XGBoost

Dataset	CNN	FCNN	GRU	LSTM	Transformer
AbnormalHeartbeat	pooling size	learning rate	learning rate	num layers	pooling: max
Adiac	num filters	learning rate	learning rate	learning rate	learning rate
ArrowHead	num filters	learning rate	num layers	num layers	pooling: max
Beef	activation: sigmoid	learning rate	learning rate	learning rate	learning rate
BeetleFly	num layers	learning rate	learning rate	hidden units	pooling: max
BinaryHeartbeat	activation: tanh	learning rate	out. act.: relu	learning rate	learning rate
BirdChicken	activation: sigmoid	learning rate	num layers	out. act.: relu	pooling: max
CBF	learning rate	learning rate	learning rate	learning rate	learning rate
Car	num filters	learning rate	num layers	num layers	learning rate
CatsDogs	activation: sigmoid	num layers	out. act.: gelu	learning rate	learning rate
ChlorineConcentration	learning rate	learning rate	learning rate	out. act.: gelu	pooling: max
CinCECGTorso	activation: sigmoid	learning rate	out. act.: gelu	learning rate	learning rate
CounterMovementJump	pooling size	learning rate	learning rate	learning rate	learning rate
DucksAndGeese	pooling size	num layers	out. act.: sigmoid	learning rate	pooling: max
EigenWorms	activation: relu	num layers	learning rate	learning rate	learning rate
FaultDetectionB	num filters	num layers	num layers	learning rate	learning rate
FiftyWords	activation: sigmoid	learning rate	learning rate	learning rate	learning rate
HouseTwenty	activation: tanh	learning rate	learning rate	out. act.: relu	pooling: max
KeplerLightCurves	num layers	learning rate	learning rate	learning rate	pooling: max
RightWhaleCalls	num filters	learning rate	out. act.: relu	num layers	pooling: max
classification_ozone	num layers	num layers	learning rate	out. act.: gelu	pooling: max

Feature Importance Values - XGBoost

Dataset	CNN	FCNN	GRU	LSTM	Transformer
AbnormalHeartbeat	0.220	0.806	0.531	0.265	0.253
Adiac	0.249	0.712	0.602	0.384	0.495
ArrowHead	0.383	0.627	0.471	0.279	0.294
Beef	0.442	0.675	0.571	0.656	0.373
BeetleFly	0.232	0.650	0.456	0.266	0.383
BinaryHeartbeat	0.239	0.850	0.242	0.726	0.461
BirdChicken	0.366	0.724	0.362	0.387	0.784
CBF	0.368	0.747	0.724	0.476	0.522
Car	0.252	0.643	0.399	0.484	0.333
CatsDogs	0.270	0.478	0.214	0.340	0.676
ChlorineConcentration	0.179	0.839	0.339	0.348	0.511
CinCECGTorso	0.383	0.444	0.293	0.444	0.738
CounterMovementJump	0.238	0.445	0.522	0.460	0.659
DucksAndGeese	0.454	0.605	0.243	0.305	0.713
EigenWorms	0.303	0.696	0.592	0.612	0.672
FaultDetectionB	0.398	0.471	0.460	0.642	0.420
FiftyWords	0.286	0.814	0.633	0.581	0.576
HouseTwenty	0.298	0.599	0.559	0.397	0.874
KeplerLightCurves	0.599	0.775	0.851	0.582	0.411
RightWhaleCalls	0.141	0.219	0.504	0.694	0.364
classification_ozone	0.300	0.662	0.284	0.212	0.305