Most Important Features - Linear Regression / **Feature Importance Values - Linear Regression**

Left panel — Most important feature per Dataset × Model:

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

Right panel — Feature Importance Values:

Dataset	CNN	FCNN	GRU	LSTM	Transformer
AbnormalHeartbeat	0.993	0.994	0.996	0.999	0.998
Adiac	0.998	0.992	0.999	0.999	0.998
ArrowHead	0.998	0.990	0.999	0.998	0.995
Beef	0.997	0.991	0.999	0.999	0.997
BeetleFly	0.998	0.986	0.999	0.999	0.986
BinaryHeartbeat	0.994	0.992	0.242	0.294	0.999
BirdChicken	0.997	0.996	0.994	0.999	0.995
CBF	0.241	0.992	0.999	1.000	0.998
Car	0.998	0.991	0.999	0.995	0.994
CatsDogs	0.995	0.984	0.990	0.998	0.998
ChlorineConcentration	0.179	0.995	0.999	0.999	0.992
CinCECGTorso	0.995	0.986	0.998	0.999	0.998
CounterMovementJump	0.154	0.985	0.999	1.000	0.997
DucksAndGeese	0.995	0.995	0.996	0.999	0.261
EigenWorms	0.996	0.970	0.999	0.999	0.999
FaultDetectionB	0.998	0.995	0.999	1.000	0.219
FiftyWords	0.997	0.992	0.999	0.999	0.999
HouseTwenty	0.996	0.991	0.999	0.999	0.987
KeplerLightCurves	0.999	0.999	0.993	0.999	0.998
RightWhaleCalls	0.996	0.988	0.979	0.999	0.988
classification_ozone	0.998	0.994	0.999	0.997	0.305