## **Overall Summary: Enhanced Ensemble Learning Results**

Device	Best Original Model	Best Original F1	Best BigFeat Model	Best BigFeat F1	F1 Improvement	BigFeat Available
device1	ExtraTrees	0.6762	ExtraTrees	0.6760	-0.0002	Yes
device2	TPOT (ExtraTrees)	0.6926	ExtraTrees	0.6954	+0.0028	Yes
device3	TPOT (ExtraTrees)	0.7700	ExtraTrees	0.7705	+0.0005	Yes
device4	ExtraTrees	0.6835	TPOT (ExtraTrees)	0.6839	+0.0005	Yes
device5	ExtraTrees	0.6441	ExtraTrees	0.6446	+0.0004	Yes
device6	TPOT (ExtraTrees)	0.6434	ExtraTrees	0.6442	+0.0008	Yes
device7	TPOT (ExtraTrees)	0.7749	TPOT (ExtraTrees)	0.7741	-0.0008	Yes
device8	Stacking	0.7010	ExtraTrees	0.7028	+0.0018	Yes
device9	TPOT (ExtraTrees)	0.7001	ExtraTrees	0.6988	-0.0013	Yes

## ENHANCED ENSEMBLE LEARNING WITH TPOT AND BIGFEAT

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BigFeat Processing Statistics:
Successfully processed: 9/9 devices
Average Original F1 Score: 0.6984
Average BigFeat F1 Score: 0.6989
Average F1 Improvement: +0.0005
Devices with positive F1 improvement: 6/9

Best Original Models Distribution: TPOT (ExtraTrees): 5 ExtraTrees: 3

Stacking: 1