Ablation Study: Detailed Results Summary

Model Variant	R Error (%)	X Error (%)	Avg Error (%)	Parameters	vs Best
GNN + Mamba (Full)	**3.18**	**3.06**	**3.12**	**62,346**	**Best**
GNN + Mamba + Attn	3.20	3.05	3.12	88,458	+0.02%
LSTM Only	3.23	3.05	3.14	77,250	+0.05%
MLP Baseline	3.23	3.33	3.28	58,754	+0.05%
GNN Only	3.24	3.43	3.34	8,706	+0.06%
GNN + LSTM	3.29	3.20	3.24	75,266	+0.11%