

Appendix:

Machine Learning at the Mobile Edge: The Case of Dynamic Adaptive Streaming over HTTP (DASH)

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I. IMPACT OF WINDOW SIZES WHILE USING DIFFERENT MODELS

TABLE I: Prediction accuracy and (F1 score) using RF over varying aggregation and prediction window sizes

W_{pred} (s)	W_{aggr} (s)					
	4	8	12	16	20	24
2	0.864 (0.854)	0.886 (0.891)	0.898 (0.897)	0.901 (0.897)	0.895 (0.892)	0.887 (0.886)
4	0.843 (0.824)	0.875 (0.861)	0.890 (0.878)	0.891 (0.883)	0.887 (0.881)	0.879 (0.876)
6	0.799 (0.773)	0.862 (0.841)	0.876 (0.859)	0.882 (0.870)	0.886 (0.876)	0.876 (0.868)

TABLE II: Prediction accuracy and (F1 score) using XGB over varying aggregation and prediction window sizes

W_{pred} (s)	W_{aggr} (s)					
	4	8	12	16	20	24
2	0.867 (0.857)	0.891 (0.884)	0.901 (0.895)	0.904 (0.900)	0.900 (0.897)	0.890 (0.889)
4	0.844 (0.827)	0.876 (0.860)	0.891 (0.881)	0.895 (0.888)	0.890 (0.884)	0.890 (0.885)
6	0.791 (0.763)	0.865 (0.847)	0.887 (0.873)	0.888 (0.876)	0.889 (0.881)	0.883 (0.876)

TABLE III: Prediction accuracy and (F1 score) using MLP over varying aggregation and prediction window sizes

W_{pred} (s)	W_{aggr} (s)					
	4	8	12	16	20	24
2	0.824 (0.824)	0.858 (0.858)	0.876 (0.878)	0.876 (0.876)	0.876 (0.876)	0.855 (0.855)

TABLE IV: Prediction accuracy and (F1 score) using LSTM over varying aggregation and prediction window sizes

W_{pred} (s)	W_{aggr} (s)					
	4	8	12	16	20	24
2	0.839 (0.841)	0.869 (0.870)	0.892 (0.890)	0.891 (0.891)	0.891 (0.890)	0.876 (0.878)