

LIST OF NOTATIONS

Symbols	Definition
t	Time Index Representing a Specific Day or Period
N	Number of Samples
X_t	Input feature matrix at time t
Y_t	Target variable at time t , representing the actual stock index value
X'	Normalized value of the feature
X	Original feature value
C_t	Stock Index Value on Market Close at time t
P_t^{Pos}	Value of the Probability of label Positive
P_t^{Neut}	Value of the Probability of label Neutral
P_t^{Neg}	Value of the Probability of label Negative
N_t^{Pos}	Total Number of Positive News
N_t^{Neut}	Total Number of Neutral News
N_t^{Neg}	Total Number of Negative News
$Prob_t^{(i)}$	Probability of each label i (Pos, Neut, Neg) at time t
S_t	Aggregated sentiment Score
$\hat{y}_i$	Predicted Value for Instance i (e.g., Sentiment Label or Stock Value)
y_i	Actual Value for Instance i (e.g., Sentiment Label or Stock Value)