Notations	Descriptions
T_1, T_2	Task 1 (Disaster Classification) and Task 2 (Sentiment Classification)
D_1, D_2	Tweet datasets for Task1 and Task 2
$text$	The text of a tweet
$label_i^1$	Label of i^{th} tweet in D_1 (disaster or no-disaster)
$label_j^2$	Label of j^{th} tweet in D_2 (positive or negative or neutral)
$\widehat{label}_i^{\,2}$	Predicted label of i^{th} tweet in D_1
$\widehat{D}_1$	D_1 augmented with the labels $\widehat{label}^{\,2}$
D_{12}	Union of D_1 (with Null $label^2$) and D_2 (with Null $label^1$)
D^{train}, D^{val}	Training, validation and for any dataset, $D_1, D_2, \widehat{D}_1, D_{12}$
D_1^{test}	Test dataset for task 1 without labels.
N_1, N_2	Total number of samples in D_1, D_2
N_1^{train}, N_2^{train}	Number samples for training in D_1, D_2
M	An untrained machine learning model.
M_D	An ML model trained on the dataset D^{train}
$Perf_{T_1}(M_{D_1} \mid D_1^{val})$	Validation Performance (F1 score) for task 1 when the $label^1$ is predicted by a model trained on D_1^{train}
$Perf_{T_2}(M_{D_2} \mid D_2^{val})$	Validation Performance (accuracy) for task 2 when the $label^2$ is predicted by a model trained on D_2^{train}
$Perf_{T_1}(M_{D_{12}} \mid D_1^{val})$	Validation Performance (F1 score) for task 1 when the $label^1$ is predicted by a model trained on D_{12}^{train}
$Perf_{T_1}(M_{D_{12}} \mid \widehat{D}_1^{val})$	Same as $Perf_{T_1}(M_{D_{12}} \mid D_1^{val})$
$Perf_{T_2}(M_{D_{12}} \mid D_1^{val})$	Validation Performance (accuracy) for task 2 when the $label^2$ is predicted by a model trained on D_{12}^{train}
λ_1, λ_2	Task weights for task1 and task2 respectively in multi-task learning.
$\lambda_p, \lambda_n, \lambda_0$	Sample weights of positive, negative and neutral tweets