Supplementary Material

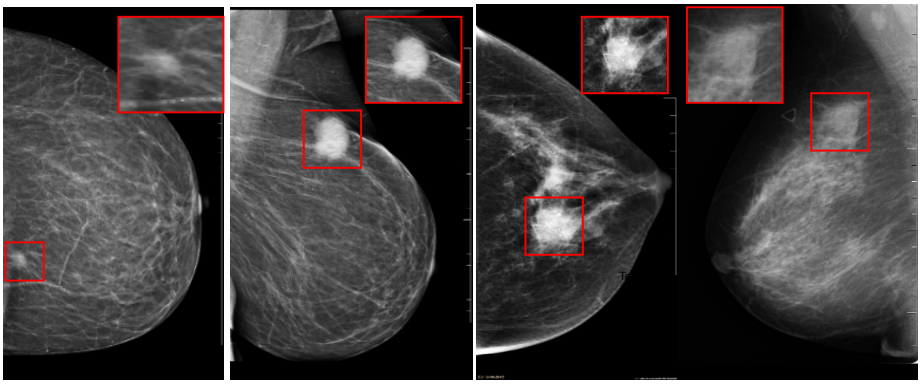

Figure 1: Distribution of samples from our private in-house dataset, categorized into aggressive and non-aggressive cancer types.

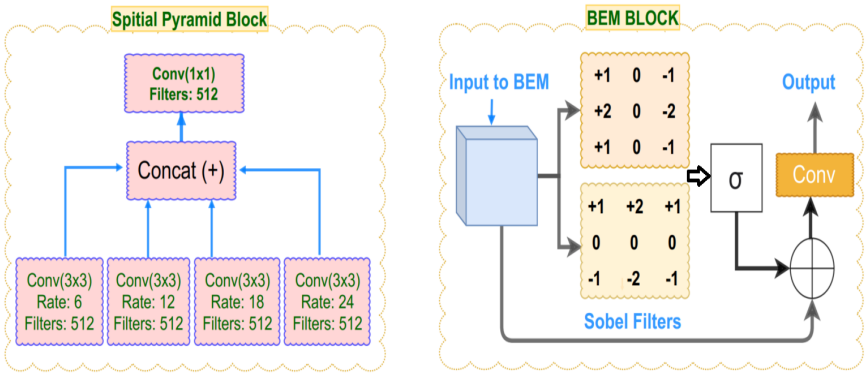

Figure 2: The illustration of the ASPP and BEM blocks effectively captures spatial details across a broader receptive field while preserving boundary information.

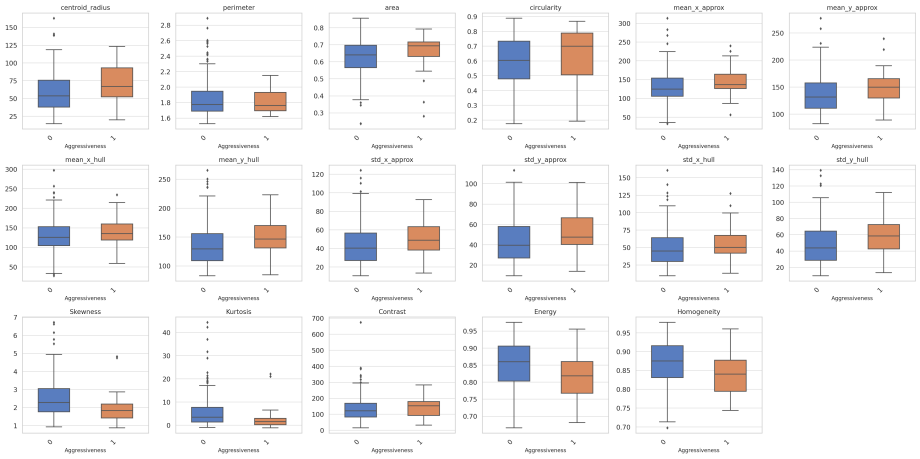

Figure 3: Box Plot of Feature Distributions by Aggressiveness Level

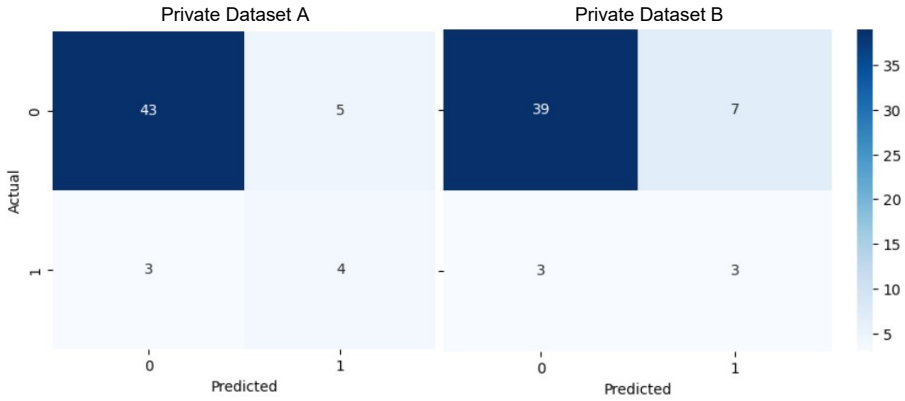

Figure 4: XGBoost Confusion Matrix for Both Test Datasets

Table 1: XGBoost Model Configuration Parameters

Parameter	Value	Brief Description
`eval_metric`	`'mlogloss'`	Validation metric
`use_label_encoder`	`False`	No label encoding
`max_depth`	5	Prevent overfitting
`n_estimators`	150	Number of trees
`learning_rate`	0.001	Learning speed
`subsample`	0.7	Data sampling rate
`colsample_bytree`	0.7	Feature sampling rate
`gamma`	0.1	Node split minimum loss
`min_child_weight`	1	Minimum child node weight

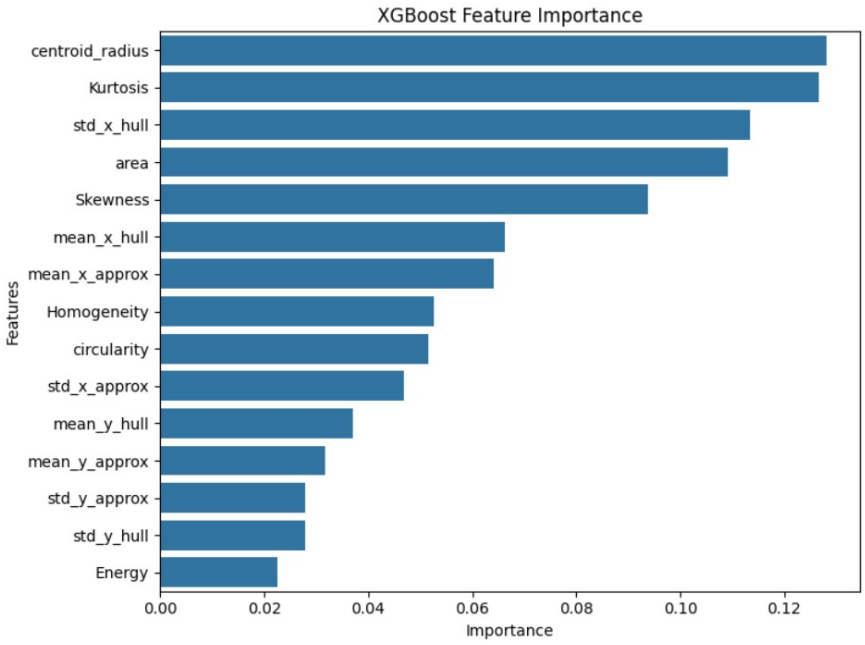

Figure 5: Feature Importance of XGBoost Model