



APPENDICES

Appendix 1. Dataset for Model Building

Number	ndvi_t	ndvi_t-1	ndvi_t-2	evi_t	evi_t-1	evi_t-2	lswi_t	lswi_t-1	lswi_t-2	bsi_t	bsi_t-1	bsi_t-2	class
1	0.130628	0.113901	0.154759	0.220160	0.113016	0.095383	0.298323	0.281027	0.154420	-0.043556	0.064547	0.142315	0
2	0.119756	0.015772	0.046187	0.092607	0.072055	0.152573	-0.091686	-0.171044	-0.242990	0.012834	0.146611	0.199570	0
3	0.195926	0.091242	0.304098	0.312777	0.174032	0.098608	0.359570	0.335036	0.249551	-0.225526	-0.136901	-0.022359	0
4	0.155501	0.092193	0.181053	0.380091	0.353190	0.387223	0.291896	0.268070	0.223356	-0.179986	-0.173920	-0.109048	0
...
861	0.135354	0.142514	0.157173	0.230436	0.291709	0.385227	0.140185	0.282606	0.326055	0.071517	0.115827	0.053561	2
862	-0.033892	0.201436	0.490080	0.229096	0.263232	0.319710	0.087082	0.124102	0.170669	0.106868	0.162745	0.120171	2
863	0.199916	0.352965	0.378552	0.291709	0.385227	0.455742	0.010107	0.111842	0.213743	0.010953	-0.026065	-0.126194	2
864	0.104210	0.186151	0.384056	0.331266	0.389175	0.442543	-0.218049	-0.168861	-0.007566	-0.178879	-0.230993	-0.274511	2



Appendix 2. Random Forest Classifier Model Configuration

```
best_params = {  
    "n_estimators": 500,  
    "min_samples_split": 2,  
    "min_samples_leaf": 1,  
    "max_features": "sqrt",  
    "max_depth": 20,  
    "bootstrap": True,  
}  
  
best_model = RandomForestClassifier(**best_params)
```



Appendix 3. Support Vector Machine (SVM) Model Configuration

```
# Initialize the SVM model  
svm_classifier = SVC(kernel='rbf', C=1.0, gamma='scale',  
random_state=42, probability=True)
```



Appendix 4. XGBoost Classifier Model Configuration

```
# Define XGBoost parameters
xgb_params = {
    'max_depth': 3,
    'eta': 0.1,
    'objective': 'multi:softmax', # for multiclass
classification
    'num_class': 3, # number of classes (SOS, POS, EOS)
    'eval_metric': 'mlogloss',
    'seed': 42
}

# Initialize the XGBClassifier
model = xgb.XGBClassifier(
    **xgb_params,
)
```



Appendix 5. Distribution of lswi_t and evi_t Feature Values on Misclassification

Data

