

Supplementary material for

**A Machine Learning-based Assessment of Urban Flood Susceptibility  
and Priority Location of Urban Water Detention Facilities:  
A Case Study of Busan, South Korea**

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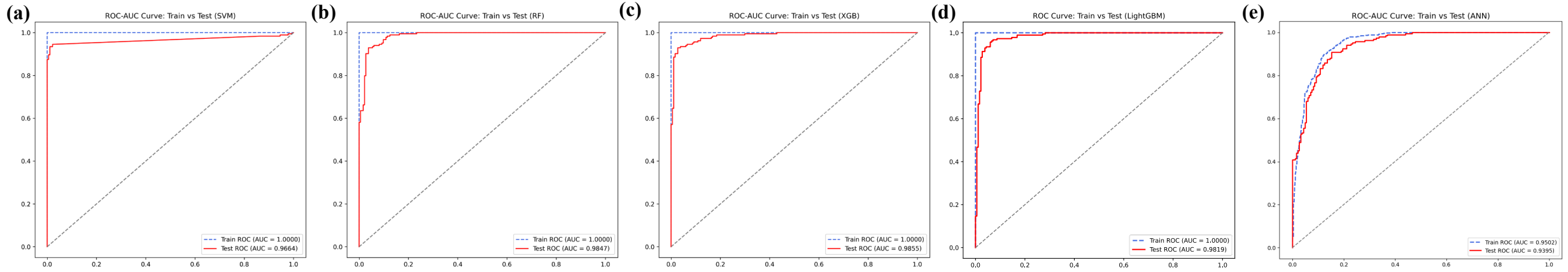
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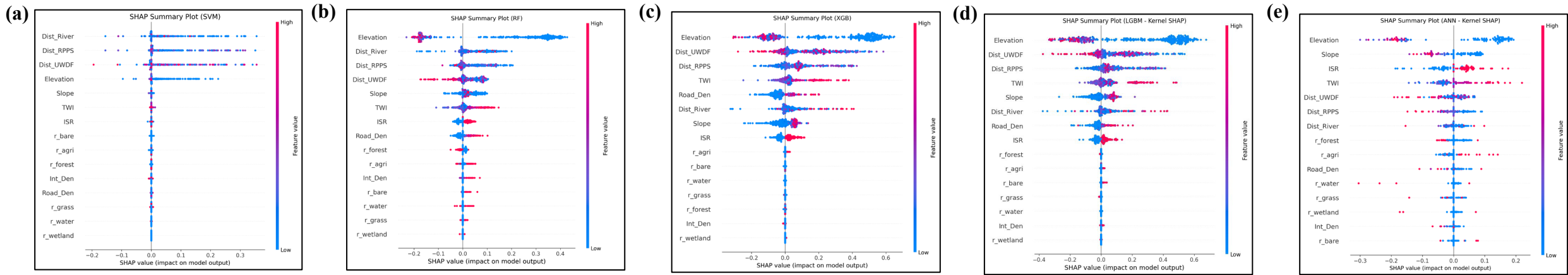
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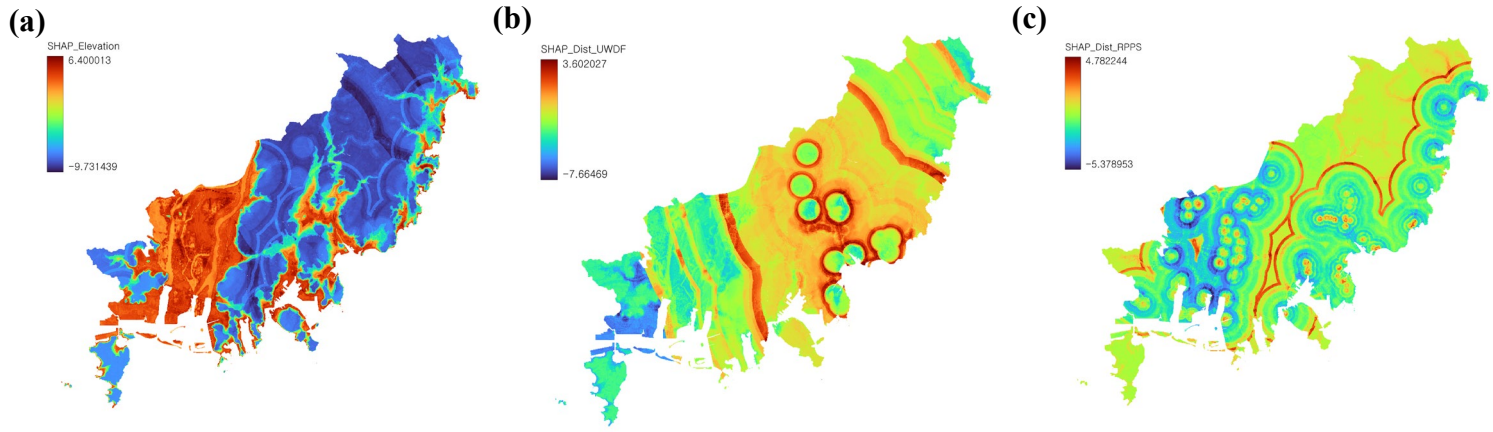
Figures S1–S3



**Fig S1.** ROC-AUC performance curves for the five machine learning models: (a) SVM, (b) RF, (c) XGB, (d) LGBM, and (e) ANN.



**Fig S2.** SHAP values for the five machine learning models: (a) SVM, (b) RF, (c) XGB, (d) LGBM, and (e) ANN.



**Fig S3.** SHAP maps of the LGBM's top three explanatory variables: (a) Elevation, (b) Distance to UWDF, and (c) Distance to RPPS.