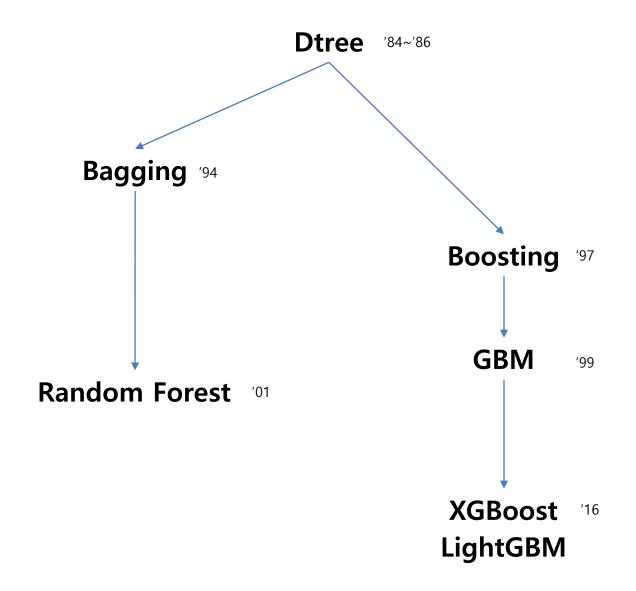


# Bagging Tree & Random Forest

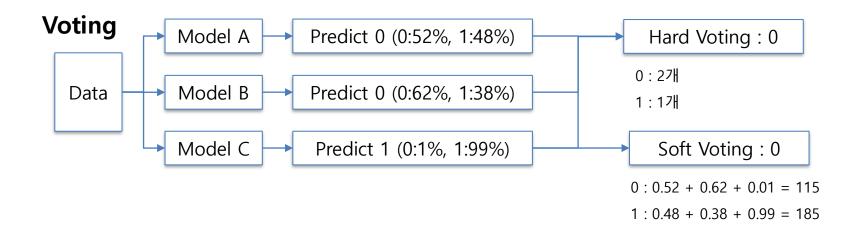
구름 도시공학과 일반대학원

한양대학교

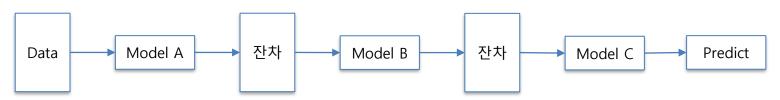
# 의사결정나무 알고리즘 확장



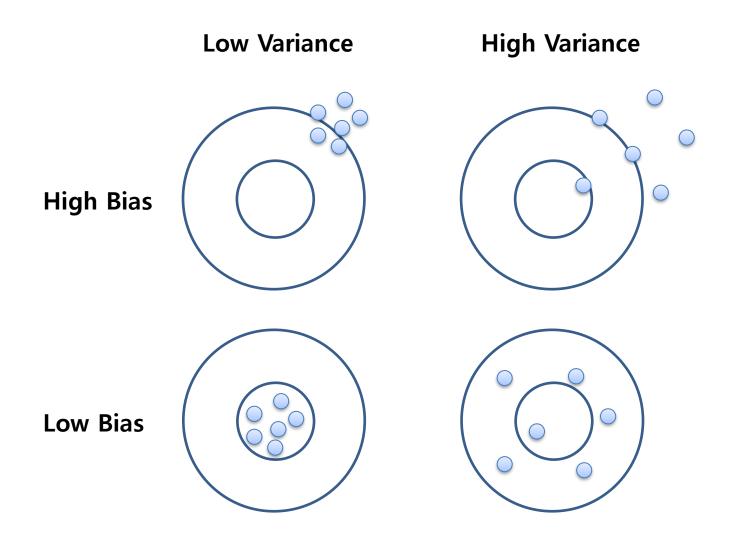
#### Ensemble Model 2개 이상의 학습 모델을 결합하는 메타 알고리즘



#### boosting

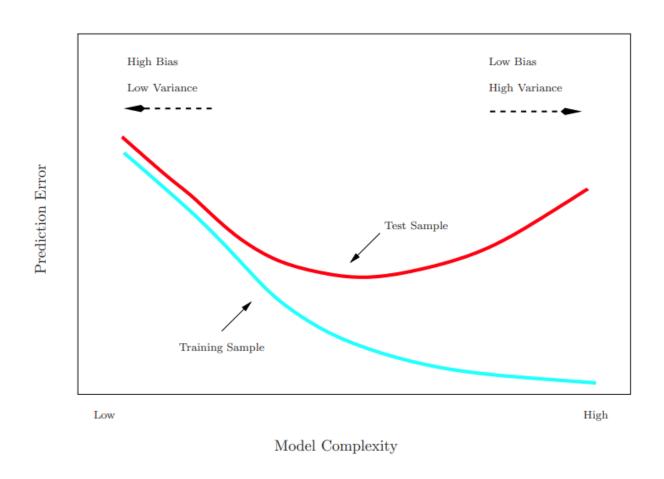


#### **Bias-Variance Trade Off**



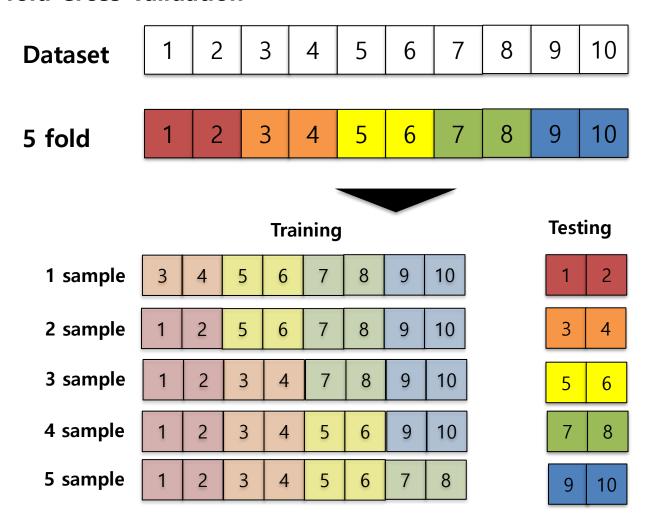
# **Error-complexity Trade Off**

# **Training Error VS Test Error**



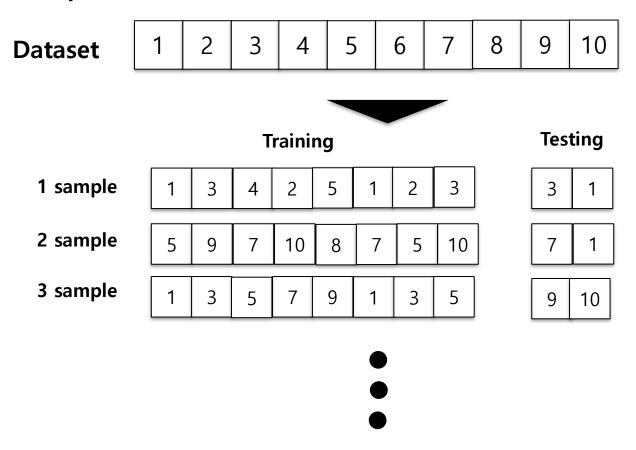
#### **Resampling: Cross Validation vs Bootstrap**

#### **K-fold Cross Validation**



# **Resampling: Cross Validation vs Bootstrap**

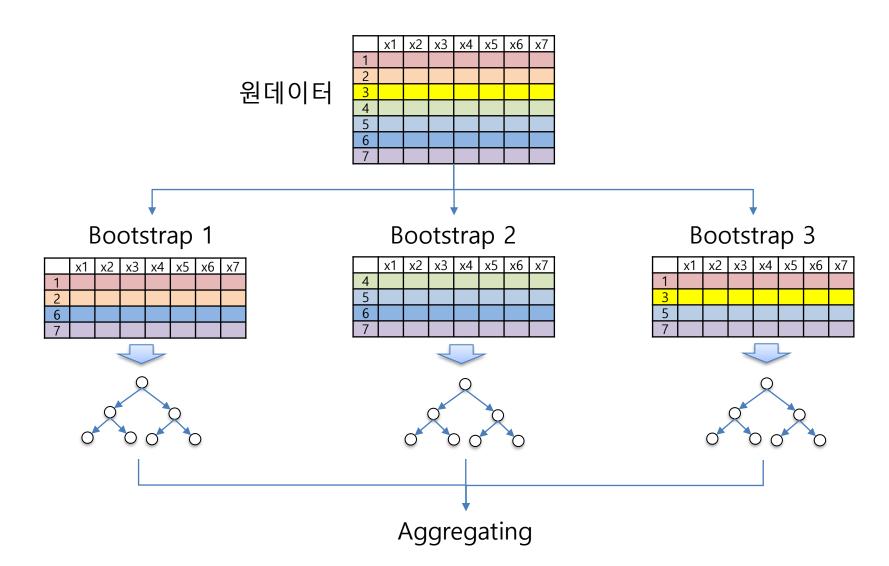
#### **Bootstrap**



# **B**ootstrap **Agg**regating: Bagging

Original Dataset 원데이터 Bootstrap Bootstrap Bootstrap sample 2 sample 1 sample n Learning model 2 Learning Learning model 1 model n Aggregation

# **B**ootstrap **Agg**regating: Bagging



#### **Random Forest**

