

A systematic evaluation of methods for cell
phenotype classification using single-cell RNA
sequencing data

Xiaowen Cao, Li Xing, Elham Majd, Hua He, Junhua Gu, Xuekui Zhang

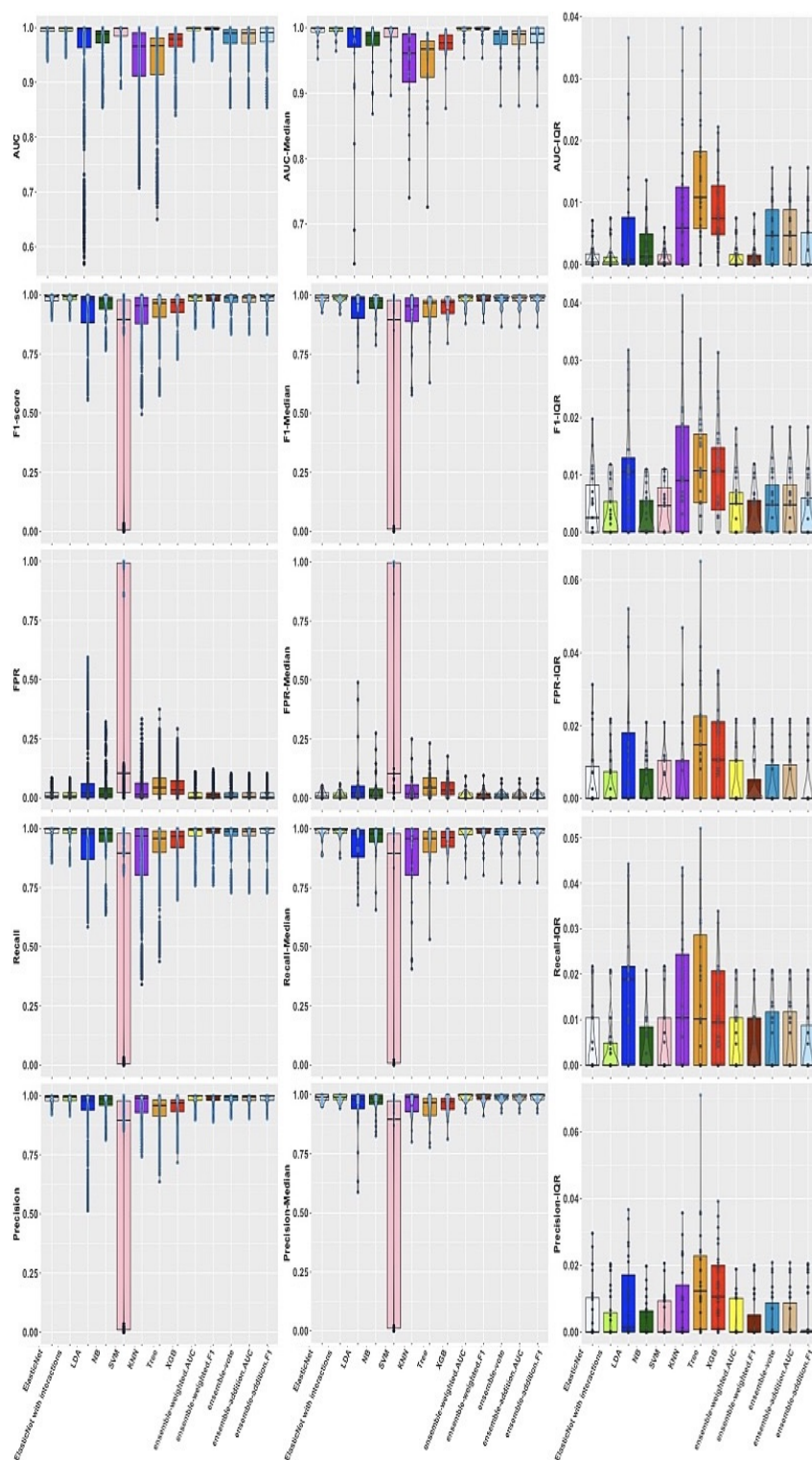


Figure S1 The values of each criterion, Median values, and IQR values of the AUC, F1-score, FPR, Recall, and Precision are indicated for 27 small data sets. The first column shows the values of AUC, F1-score, FPR, Recall, and Precision for 13 algorithms, from up to down. The median value of each criterion was used to represent the performance of the corresponding algorithm. The second column represents AUC-Median, F1-Median, FPR-Median, Recall-Median, and Precision-Median, and each box has 27 points. The third column represents AUC-IQR, F1-IQR, FPR-IQR, Recall-IQR, and Precision-IQR, from up to down. The IQR value of each criterion was applied to represent the stability of the corresponding algorithm. We have marked the criteria on the axis of each box.

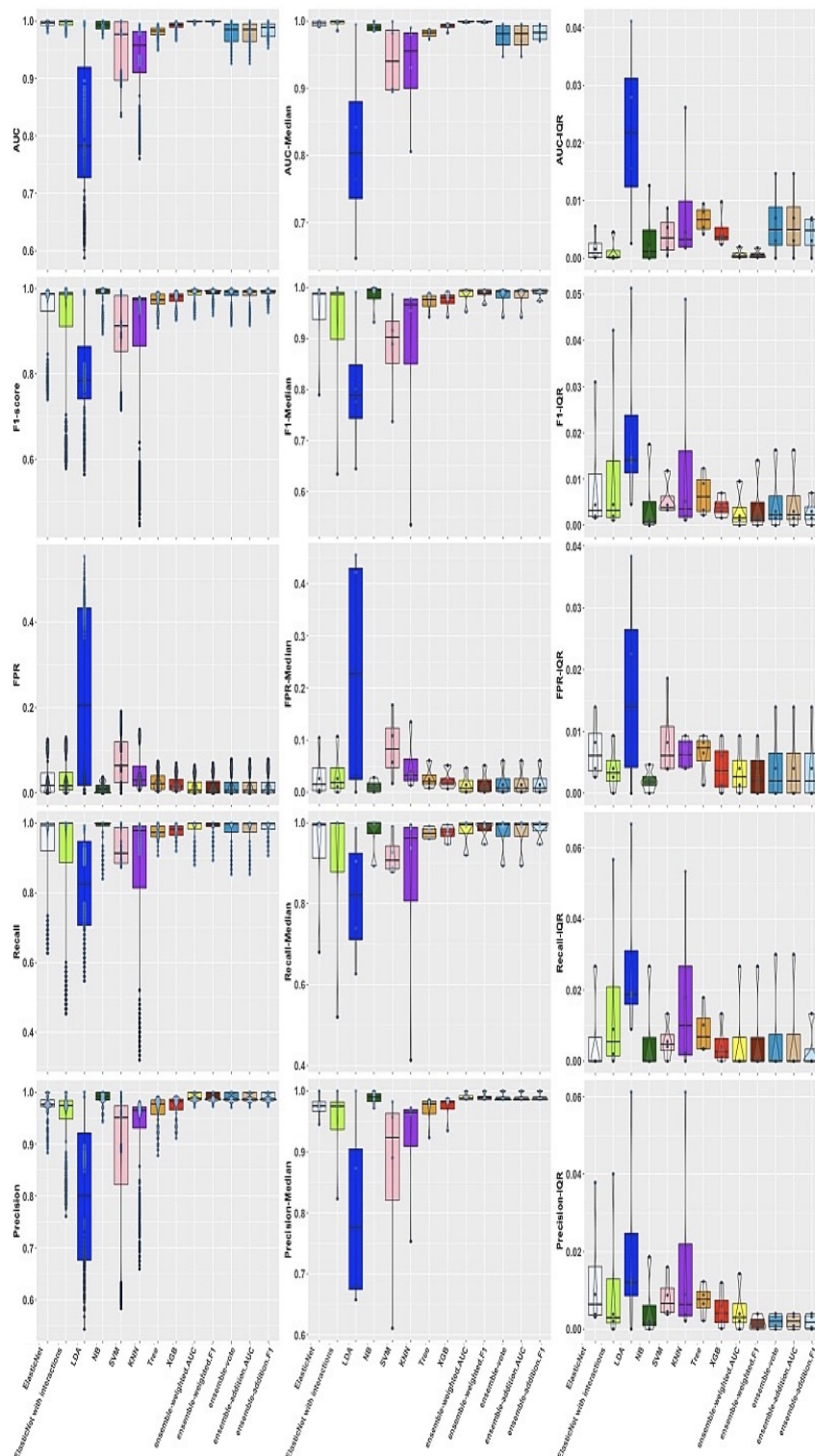


Figure S2 The values of each criterion, Median values, and IQR values of the AUC, F1-score, FPR, Recall, and Precision are indicated for 4 medium data sets. The first column shows the values of AUC, F1-score, FPR, Recall, and Precision for 13 algorithms, from up to down. The median value of each criterion was used to represent the performance of the corresponding algorithm. The second column represents AUC-Median, F1-Median, FPR-Median, Recall-Median, and Precision-Median, and each box has 4 points. The third column represents AUC-IQR, F1-IQR, FPR-IQR, Recall-IQR, and Precision-IQR, from up to down. The IQR value of each criterion was applied to represent the stability of the corresponding algorithm. We have marked the criteria on the axis of each box.

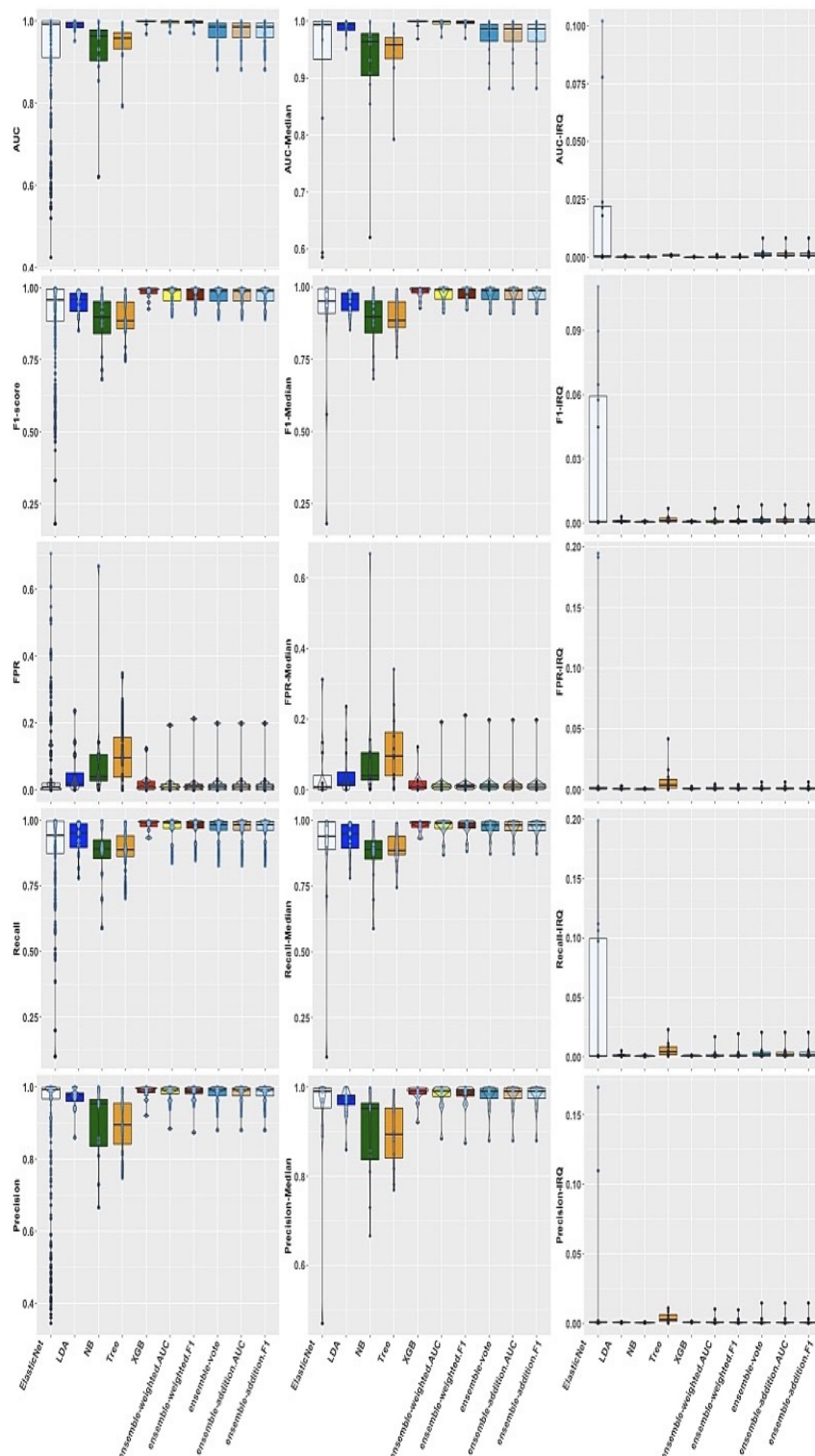


Figure S3 The values of each criterion, Median values, and IQR values of the AUC, F1-score, FPR, Recall, and Precision are indicated for 12 large data sets. The first column shows the values of AUC, F1-score, FPR, Recall, and Precision for 10 algorithms, from up to down. The second column represents AUC-Median, F1-Median, FPR-Median, Recall-Median, and Precision-Median, and each box has 10 points. The median value of each criterion was used to describe the performance of the corresponding algorithm. The third column represents AUC-IQR, F1-IQR, FPR-IQR, Recall-IQR, and Precision-IQR, from up to down. The IQR value of each criterion was applied to represent the stability of the corresponding algorithm. We have marked the criteria on the axis of each box.