A List of Metrics Calculated by OpenML

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1. **RAM_hours**

2. **area_under_roc_curve** The area under the ROC curve (AUROC), calculated using the Mann-Whitney U-test. The curve is constructed by shifting the threshold for a positive...

3. **average_cost**

4. **build_cpu_time** The time in seconds to build a single model on all data.

5. **build_memory** The memory, in bytes, needed to build a single model on all data.

6. **class_complexity** Entropy, in bits, of the class distribution generated by the model's predictions. Calculated by taking the sum of -log2(predictedProb) over all...

7. **class_complexity_gain** Entropy reduction, in bits, between the class distribution generated by the model's predictions, and the prior class distribution. Calculated by...

8. **confusion_matrix** The confusion matrix, or contingency table, is a table that summarizes the number of instances that were predicted to belong to a certain class,...

9. **correlation_coefficient** The sample Pearson correlation coefficient,

10. **f_measure** The F-Measure is the harmonic mean of precision and recall, also known as the the traditional F-measure, balanced F-score, or...

11. **kappa** Cohen's kappa coefficient is a statistical measure of agreement for qualitative (categorical) items: it measures the agreement of prediction with the...

12. **kb_relative_information_score** The Kononenko and Bratko Information score, divided by the prior entropy of the class distribution. See: Kononenko, I., Bratko, I.:...

13. **kohavi_wolpert_bias_squared** Bias component (squared) of the bias-variance decomposition as defined by Kohavi and Wolpert in: R. Kohavi & D. Wolpert (1996), Bias plus variance...

14. **kohavi_wolpert_error** Error rate measured in the bias-variance decomposition as defined by Kohavi and Wolpert in: R. Kohavi & D. Wolpert (1996), Bias plus variance...

15. **kohavi_wolpert_sigma_squared** Intrinsic error component (squared) of the bias-variance decomposition as defined by Kohavi and Wolpert in: R. Kohavi and D. Wolpert (1996), Bias...

16. **kohavi_wolpert_variance** Variance component of the bias-variance decomposition as defined by Kohavi and Wolpert in: R. Kohavi and D. Wolpert (1996), Bias plus variance...

17. **kononenko_bratko_information_score** Kononenko and Bratko Information score. This measures predictive accuracy but eliminates the influence of prior probabilities. See: Kononenko,...

18. **matthews_correlation_coefficient** The Matthews correlation coefficient takes into account true and false positives and negatives and is generally regarded as a balanced measure which...

19. **mean_absolute_error** The mean absolute error (MAE) measures how close the model's predictions are to the actual target values. It is the sum of the absolute value of the...

20. **mean_class_complexity** The entropy of the class distribution generated by the model (see class_complexity), divided by the number of instances in the input data.

21. **mean_class_complexity_gain** The entropy gain of the class distribution by the model over the prior distribution (see class_complexity_gain), divided by the number of instances...

22. **mean_f_measure** Unweighted(!) macro-average F-Measure. In macro-averaging, F-measure is computed locally over each category rst and then the average over all...

23. **mean_kononenko_bratko_information_score** Kononenko and Bratko Information score, see kononenko_bratko_information_score, divided by the number of instances in the input...

24. **mean_precision** Unweighted(!) macro-average Precision. In macro-averaging, Precision is computed locally over each category rst and then the average over all...

25. **mean_prior_absolute_error** The mean prior absolute error (MPAE) is the mean absolute error (see mean_absolute_error) of the prior (e.g., default class...

26. **mean_prior_class_complexity** The entropy of the class distribution of the prior (see prior_class_complexity), divided by the number of instances in the input data.

27. **mean_recall** Unweighted(!) macro-average Recall. In macro-averaging, Recall is computed locally over each category rst and then the average over all...

28. **mean_weighted_area_under_roc_curve** The macro weighted (by class size) average area_under_ROC_curve (AUROC). In macro-averaging, AUROC is computed locally over each category rst...

29. **mean_weighted_f_measure** The macro weighted (by class size) average F-Measure. In macro-averaging, F-measure is computed locally over each category rst and then the...

30. **mean_weighted_precision** The macro weighted (by class size) average Precision. In macro-averaging, Precision is computed locally over each category rst and then the...

31. **mean_weighted_recall** The macro weighted (by class size) average Recall. In macro-averaging, Recall is computed locally over each category rst and then the average...

32. **precision** Precision is defined as the number of true positive (TP) predictions, divided by the sum of the number of true positives and false positives...

33. **predictive_accuracy** The Predictive Accuracy is the percentage of instances that are classified correctly. Is it 1 - ErrorRate.

34. **prior_class_complexity** Entropy, in bits, of the prior class distribution. Calculated by taking the sum of -log2(priorProb) over all instances, where priorProb is the prior...

35. **prior_entropy** Entropy, in bits, of the prior class distribution. Calculated by taking the sum of -log2(priorProb) over all instances, where priorProb is the prior...

36. **recall** Recall is defined as the number of true positive (TP) predictions, divided by the sum of the number of true positives and false negatives...

37. **relative_absolute_error** The Relative Absolute Error (RAE) is the mean absolute error (MAE) divided by the mean prior absolute error (MPAE).

38. **root_mean_prior_squared_error** The Root Mean Prior Squared Error (RMPSE) is the Root Mean Squared Error (RMSE) of the prior (e.g., the default class prediction).

39. **root_mean_squared_error** The Root Mean Squared Error (RMSE) measures how close the model's predictions are to the actual target values. It is the square root of the Mean...

40. **root_relative_squared_error** The Root Relative Squared Error (RRSE) is the Root Mean Squared Error (RMSE) divided by the Root Mean Prior Squared Error (RMPSE). See...

41. **run_cpu_time** Runtime in seconds of the entire run. In the case of cross-validation runs, this will include all iterations.

42. **run_memory** Amount of memory, in bytes, used during the entire run.

43. **run_virtual_memory** Amount of virtual memory, in bytes, used during the entire run.

44. **single_point_area_under_roc_curve**

45. **total_cost**

46. **unclassified_instance_count** Number of instances that were not classified by the model.

47. **webb_bias** Bias component (squared) of the bias-variance decomposition as defined by Webb in: Geoffrey I. Webb (2000), MultiBoosting: A Technique for...

48. **webb_error** Intrinsic error component (squared) of the bias-variance decomposition as defined by Webb in: Geoffrey I. Webb (2000), MultiBoosting: A Technique...

49. **webb_variance** Variance component of the bias-variance decomposition as defined by Webb in: Geoffrey I. Webb (2000), MultiBoosting: A Technique for Combining...