1.       Define conditional probability in relation to Bayes theorem and explain its use as a machine learning classifier when applied to both discrete and continuous forms of data. In what sorts of situations are Bayes classifiers and predictors useful.

28? The Bayes classifiers

references: Unit2 slides

1.       The two primary ensemble learning methods that are based upon decision trees are the random forest and the adaboost (adaptive boosting) algorithms. Explain how they fundamentally differ in simple terms. (Hint: compare bagging vs boosting methods with respect to ensemble learning)

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| --- | --- |
| primary ensemble learning methods |  |
| random forest |  |
| adaboost |  |

references: Unit2 slides

2.       There are many ways to compare the performance of machine learning algorithms upon your own data. Describe how confusion matrices, cross-validation, and AUC-ROC curves are all used to assess performance across different methods of machine learning.

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| machine learning algorithms | compare the performance |  |
| confusion matrices |  |  |
| cross-validation |  |  |
| AUC-ROC curves |  |  |

references: Unit2 slides​