

Predict the running times of prospective Olympic sprinters using data from the last 20 Olympics.:
Linear regression KNN would likely prove best here as the data is likely to be fairly consistent and repeatable.

You have more features (columns) than rows in your dataset.:
One must be very careful of overfitting in this instance. Some initial preparation analysis including PCA would be helpful in identifying the set of features to use.

Identify the most important characteristic predicting likelihood of being jailed before age 20.:
An ensemble decision tree may provide the best insights here - examining the combination of characteristics.

Implement a filter to "highlight" emails that might be important to the recipient:
Naive Bayes might be best in this case because it works on dependent events and the probability of recurrence based on previous events.

You have 1000+ features.
Again, some ensemble modeling is likely to be needed. And, preparatory analysis to eliminate redundancy and avoid overfitting.

Predict whether someone who adds items to their cart on a website will purchase the items.
Gradient boosting machine may produce the best results in this case as it iterates the results and provides weight to features that are best predictors.

Your dataset dimensions are 982400 x 500:
Again, preparatory analysis like PCA can reveal best predictors and eliminate redundancy. Care must be used when evaluating results and a continuous learning model would be important here.

Identify faces in an image.:
SVM.

Predict which of three flavors of ice cream will be most popular with boys vs girls:
Decision tree or random forest. And, also naive bayes or even KNN could be simpler, faster methods depending on the size of data.