

Home Work due Sunday, Feb 23 before 12:00am

1. Drawdown is defined as the drop from a local maximum of the yearly returns curve to the next local minimum. Drawdowns are bad because they make investors anxious.

Another measure of performance is the maximum drawdown over a period.

①

Use the included 7 sets of optimal features over the holding period 2003-2018 and a RandomForestClassifier, to find a combination of hyper-parameters and optimal features that gives the lowest yearly max drawdown.

②

Next try to change the labels as in home work 1 and 2 (or try to use your own way to make labels) and try to find a strategy that has both good Sharpe Ratio (>1) and a small max drawdown.

2.

The same questions using an AdaBoost model.