ML Week

Notes from yesterday

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One vs Rest, One vs One

What I described yesterday:

- OvR (OvA): compute k classifiers
- OvO: compute $k(k-1)/2$ classifiers

The missing point: the classifiers give scores, not just in/out answers.

One vs Rest, One vs One

One vs Rest:

Accept the judgement of the classifier with the highest score.

One vs Rest, One vs One

One vs One:

Classifiers vote. Accept the class that gets the most votes. Advantage: Reduces multi-class classification to single-class classification.

Disadvantage: Classifier scores aren't necessarily comparable. For example, classes may have very different numbers of members.

Hyperparameters

- The word hyperparameter is not well-defined.
- In most contexts, it is the parameters of the underlying distribution
- In training, we learn the parameters of the model
- We choose the hyperparameters to govern the training
- So we may want to experiment to learn the distribution parameters that best optimise our learned model's performance

Questions?

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