

Pseudocode Cross-Validation

- a) Erzeugen von stratifizierten Faltungen:

```
//Datenstruktur mit einer Liste für jede Faltung einer
//Klasse.
List[][] folds := new List[[C]][k];
for each class c do
    int counter = 0;
    for each object o in c do
        folds[c][counter mod k].insert(o)
        counter = counter + 1
    enddo
enddo
```

- b) k-fold Cross-Validation

```
int[][] confusionMatrix = new int[[C]][[C]]
for f = 1 to k do
    List[] TR = new List[[C]];
    List[] TE = new List[[C]];
    //Build Trainingset
    for x = 1 to k do
        if x==f then
            continue;
        endif
        for c = 1 to |C| do
            TR[c] add fold[c][x]
        enddo
    enddo
    //Build Testset
    for c = 1 to |C| do
        TE[c] add fold[c][f]
    enddo
    //Train and Test
    Classifier cl;
    cl.train(TR) ;
    for c = 1 to |C| do
        for each object o in TE[c] do
            prediction = cl.classify(o)
            confusionMatrix[c][prediction]= confusionMatrix[c][prediction]+ 1
        enddo
    enddo
enddo
```