Your project submission

Binary image from TA

Connected component analysis

Table of features
Training your classifier

Training image a \(\xrightarrow{\text{segmentation}}\) Binary image \(\xrightarrow{\text{CCA}}\) Table of features
Training your classifier

Training image a

Training image b

Training image p

Segmentation

Binary image

CCA

Table of features for 800 training characters
Training the classifier

For each subset of features
for each character in the table
find its k nearest neighbors
classify it
update confusion matrix
Evaluate confusion matrix
Choose best subset of features

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And called it
Editing the database - eliminating unnecessary elements

For each element in the ORIGINAL training set
find its k-nearest neighbors in reduced table
classify and update confusion matrix
The final experiment

Get the test image

- Threshold it
- Apply noise cleaning (if useful)
- Compute its connected components
- Build the table of features
- Classify each component using the edited training set
- Compute the confusion matrix
- Write your report