

Summary

In this project, feature extraction and prediction is performed on the Raphael paintings dataset. In the first analysis feature extraction is performed using invariant scattering networks and transfer learning using the pretrained VGG19 network. The author finds that the transfer learning is able to achieve a good prediction accuracy faster than the scattering network. In the second analysis PCA is used together with KNN ($K = 3$) for prediction. This is compared with SVM supervised learning. It is observed that the SVM performs better than the PCA with KNN, which the author argues could be because the PCA only manages to capture 30 % of the explained variance.

Assessment

Strengths

- The presentation is comprehensible
- The analysis is well documented and repeatable

Weaknesses

- There are a few language mistakes in the plain text
- The algorithms could be explained and relevant references could be included to make the notebook more self contained

Quality of writing: 3

The writing is clear, but there are a few language mistakes and typos: "transfoer", "fast and study decrease", "traing", "acheaving", "in a few epoch". Score: 3.

Technical quality: 4

The analysis is possible to replicate and the code is presented in an accessible way for the reader. The analysis could be made deeper and related work could be discussed. Score: 4.

Overall rating: 4

Confidence of peer review: 3