Summary

In the report methods for feature extraction on the MNIST dataset are studied. For feature extraction scattering net, pre-trained VGG19 and ResNet50 are used. The prediction accuracy using the features with logistic regression LDA, random forest and SVM is evaluated and compared with prediction accuracies using the raw data. The report also covers learning of classifiers on the real/fabricated Raphael painting dataset.

Assessment

Strengths

- The presentation is highly detailed yet relevant
- The analysis is strong and well documented
- The methods are well explained

Weaknesses

• The conclusion part of the report is more of an abstract. The report could benefit from having a compact conclusion explicitly mentioning the most interesting findings of the analysis and discussion.

Quality of writing: 5

The writing is clear and efficient. No language mistakes were found. The conclusion part could explain the conclusions in a more efficient way.

Technical quality: 5

The analysis is possible to replicate and the code is presented in an accessible way for the reader. Related work could be discussed.

Overall rating: 5

The analysis is advanced yet well documented. The presentation is clear and efficient. The discussion is elaborated and well founded.

Confidence of peer review: 3