* **Summary of the report.**

This report chooses Mnist as dataset and do feature extraction using ResNet-18 and Scattering net. Finally, they use t-sne to visualize the features and do image classification with these features. After the experiments part, they also give some analysis to the results.

* **Describe the strengths of the report.**

Their results seems reasonable and the best accuracy of 99% on Mnist is good. Also, the visualization of features with t-sne looks good, the different classes are well separated, which means that the feature extracted is good.

* **Describe the weaknesses of the report.**

1. The writing seems not very accurate, for example, in the introduction part, it says “To analyze the quality of extracted features, we visualize the features using PCA.” However, it actually uses t-sne in the report.

2. I think they should try more classifiers and analysis deeper. Only play with SVM may not be enough, there are many classifiers like logistic regression to play with. Moreover, if they and try logistic regression with feature extracted by ResNet-18 and see whether there is difference between these two methods, this report might be more interesting because training the last layer and using logistic regression is equivalent. If the fine-tuning performs well, then logistic regression should also performs well.

* **Evaluation on Clarity and quality of writing (1-5)**:

2

Sometimes, the description in this report is inconsistence and confusing. Like the visualization method.

* **Evaluation on Technical Quality (1-5)**:

3

* **Overall rating**:

3- An average one

* **Confidence on your assessment**

3- I have carefully read the paper and checked the results